



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

72 E 15

~~7200612~~

~~7200612~~

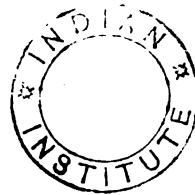
Indian Institute, Oxford.

Is. it. Buden - Powell bequest









REPORT

ON THE

SETTLEMENT OF THE MUTTRA DISTRICT,

NORTH-WESTERN PROVINCES.

---

By R. S. WHITEWAY,  
*Bengal Civil Service.*

---



---

ALLAHABAD:

NORTH-WESTERN PROVINCES AND OUDH GOVERNMENT PRESS.

1879.



No. <sup>100</sup><sub>1-152</sub> OF 1880.

FROM

J. S. MACKINTOSH, Esq.,  
*Secretary to the Board of Revenue, N.-W. P.*

TO

C. ROBERTSON, Esq.,  
*Secretary to Government, N.-W. P. and Oudh.*

DATED ALLAHABAD, THE 1ST SEPTEMBER, 1880.

SIR,

*Present:*

H. S. REID, Esq.

I AM desired by the Senior Member of the Board to submit, for the orders of Government, the final Settlement Report of the Muttra district, by Mr. R. S. Whiteway, Settlement Officer, with the following review :—

2. The Muttra district, when the revised settlement to which this report relates commenced, comprised the Jalesar pargana in addition to the six tahsils, which form the district as at present constituted, excluding 84 villages transferred from pargana Farah, zila Agra, in 1878, which were settled as part of the Agra district, and regarding which a separate memo. is given at the end of the report. Pargana Jalesar was transferred to the Agra district in 1872. It has been reported on separately by its late Settlement Officer, Mr. McConaghey. Mr. Whiteway's report treats of the present district only, excluding the Farah villages, which contains an area of 1,346·47 square miles, of which 704·45 lie to the west, and 642·02 to the east, of the river Jumna. The Cis-Jumna tahsils, (i. e., those lying west of the Jumna, viz., Muttra, Chāta, and Kosi) differ very considerably in many ways from those to the east of that river, viz., the Trans-Jumna tahsils Sadabad, Mahāban and Māt. The latter contain a denser agricultural population scattered about in hamlets, and numbering 620 to the square mile of cultivation, the average area of the inhabited sites being 338, and the average population of the same 297. In the Cis-Jumna tahsils there are, besides the large towns of Muttra, Bindraban and Kosi, many large villages which are often still fortified owing to the frequent inroads in former days of the Jāts and Mahrattas. The average area of the inhabited sites is 965, and the average population 849. The gauhan (home) lands give an area of 8 per cent. of the cultivation against an area of 15 per cent. in the tahsils lying to the east of the Jumna. In the Cis-Jumna tahsils there are more Thākurs, in the Trans-Jumna tahsils more Jāts. The better part of the former is included in the Brijmandal, the Holy Land of the Hindus, Gokal and Baldeo being the only famous places of pilgrimage in the latter. In the tahsils lying on the right bank of the Jumna, and along the western border of the district, there are several distinct ranges of hills, towards which the country stretches in an unbroken plain, devoid of rivers and marshes. Until the construction of the Agra canal there was comparatively little irrigation in many parts of the tract, the water of the wells, moreover, being worse for purposes of irrigation than in the Trans-Jumna parganas. The more valuable crops,—cotton, wheat and barley—are less largely grown. The cultivation is more careless, and the average amount of cultivation per plough considerably greater (15·7 against 12·9 acres); at the same time the average area of proprietary holdings is smaller, being 15 against 18 acres. A larger proportion of the cultivation is sīr, and a large area is held by tenants possessed of occupancy rights. The rural population of the revenue-paying villages of the (1) Cis-Jumna, and (2) Trans-Jumna parganas aggregates (1) 252,959, and (2) 319,309. The physical features of both tracts are described in pages 4 to 9 of the report.

3. The Muttra district, or rather so much of it as is comprised in the Cis-Jumna parganas and pargana Māt, Noh Jhīl, and the western half of Mahāban,—a tract almost absolutely identical with the Brijmandal of Hindu topography, where the divine brothers

Krishna and Bala Ram grazed their herds (see Growse's Mathura, Chapter IV.), is now the head-quarters of the Vaishnavite religion in India,—“the birth place and abiding home of Vaishnava Hinduism” as Mr. Growse describes it. In earlier times it was a place of great sanctity among the Buddhists. The Buddhist religion was flourishing therein in the second century before the Christian era. “Six hundred years later when the Chinese traveller FaHian visited the city, the Buddhist zeal was at its height; but if that dark struggle with the Brahmanical religion, of which we have no history, had not then begun, it must have commenced soon after, for when the second Chinese traveller Hwen Tshang came in 634 A.D., he found Buddhism considerably decayed. The next three hundred years saw the struggle finally ended, for of Buddhism no traces remained when Mahmud of Ghazni's invasion came in 1019 A.D.” (See page 9 of Mr. Whiteway's report). Muttra was attacked and its Hindu temples were destroyed by the fanatical invaders of India, Mahmud of Ghazni in the beginning of the eleventh century, and Ahmad Shah Durrani in 1757. The begottd Aurangzeb, scandalized by the growth of the Hindu religion, endeavoured to crush it in 1669. After his death the Jāts revolted and were finally driven from the district in 1776. In 1782 the Mahrattas under Scindia gained possession, from whom the British Government acquired it by treaty in 1803, when the parganas now composing Muttra were distributed among the districts of Farukhabad, Etāwah and Agra. In 1804 the parganas which had gone to the two former districts were transferred to Aligarh, which was formed into a district. In 1824 the district of Sadabad was created, the head-quarters of which were removed to Muttra in 1832. The Muttra pargana was then transferred from the Agra tahsil and formed part of the Aring tahsil, and two new tahsils Kosi and Sahar were made. In 1840 some talukas were transferred from Aligarh, and the boundaries of the district were not altered till the transfer of pargana Jalesar to zila Agra in 1872. In 1878 eighty-four villages of the Farah tahsil of the Agra district were transferred, after their settlement as part of that district, to Muttra.

4. There is very little irrigation otherwise than from wells and canals. Mr. Whiteway mentions the existence of a strong religious feeling against using the water of the village tanks for irrigation, which are reserved for watering cattle in the hot weather. In the Trans-Jumna tract, only six villages are irrigated from the upper Ganges canal. The abandonment of the project, mentioned at page 12 of the report, for the irrigation by a Māt branch of the same canal, is under consideration, and it is to be hoped will be abandoned, for this branch would run through a country, in which it would probably do more harm than good, or would at any rate be unnecessary, as the tract is already commanded by wells. The Agra canal which runs through the less abundantly irrigated Cis-Jumna parganas is, on the other hand, most useful, and is greatly appreciated by the people, as is proved by the rapid extension of irrigation therefrom, shown in the figures of page 13 of the report. The Agra canal returns for 1877-78 were as follows, in acres:—

Parganas.					Kharif.	Rabi.	Total.
Muttra	...	...	...	...	12,105	20,235	32,340
Ohāta	...	...	...	...	4,447	8,386	12,833
Kosi	...	...	...	...	740	3,707	4,447
Total					17,292	32,328	49,620

The rabi canal irrigated area of 1879-80 fell down to 10,746, owing, it may be assumed, to the exceptionally heavy rain-fall in 1879. Already there has been a great extension of sugarcane cultivation, the coarser kharif crops have been replaced by the more valuable ones, such as cotton, while even indigo has been sown in some

villages. Mr. Whiteway's remarks regarding the possible failure of the canals as insurance against famine are deserving of attention. He writes, that during the hot weather of 1878 all the kacha wells in the villages, through which the main canal passed, and from which 5,000 acres were formerly irrigated, were rendered useless, having fallen in owing to the rise in the water level.

5. The total irrigated area, as far as can be gathered from the separate tahsil rent-rate reports (the general report is very much wanting in detailed statistics), aggregates 389,790 acres, but according to the number of wells and average area irrigated per well, given at page 16 of the report, 349,883 acres. The figures taken from the tahsil rent-rate reports must include canal, as well as well irrigation. Mr. Whiteway has described in detail the different kinds of wells, as also the varying character of the water, much of which is quite unsuited for irrigation purposes.

6. The average rain-fall of 15 years (from 1863-64 to 1877-78) has been 25.13 inches, the average being a little larger in the Cis-Jumna tahsils (*viz.* 26.1) than in the Trans-Jumna (24.1 inches). The average for the North-Western Provinces in the six years, between 1871-72 and 1876-77, was 41.8, and for the Muttra district for the same period 29.8 inches. The rain-fall in 1877-78 for (1) the whole Province, and (2) Muttra was (1) 22.9 and (2) 13.66 inches. These figures show that the normal fall of rain in the Muttra district is very much below the average of most of the other districts in these provinces.

7. The district is very well supplied with the means of communications in the form of metalled and of village kacha roads, of a railway and a navigable canal, and the river Jumna. Metalled roads run from Muttra to Agra, Delhi, Aligarh, Hâthras, Jalesar *via* Sadabad, Bhartpur, Dig and Brindaban. The East Indian Railway traverses about six and three quarters miles of the district, while a light railway connects Muttra with Hâthras, a station on the East Indian Railway, while another will shortly run from the Muttra station to Achnera, a station on the Rajputana State Railway. A good deal of traffic passes along both the Jumna river and the Agra canal; on the latter from and to Agra and Delhi. Mr. Whiteway reports that there are no manufactures, and consequently no trade in the district other than that of agricultural produce.

8. Mr. Whiteway has given returns of the areas of the several autumn (a) and spring (b) crops in (1) the uplands, and (2) the Jumna valley.

They are as follows :—

	(a.)	(b.)
(1)	406,714 acres.	294,560 acres.
(2)	8,236 „	21,629 „

A very large area (109,646 acres) is under cotton. The juâr and bâjra areas are 221,624 and 41,864 acres. Since last settlement there has been a slight increase of rabi cultivation, while the area under cotton and barley has diminished. The decrease in the area covered by barley Mr. Whiteway considers to be probably nominal and caused by the inclusion of bejhar (barley and gram) in barley at the last settlement, while the chief cause of the falling off of cotton cultivation has been the substitution of English manufactured for home made cloth. Arhar, which comes into neither the kharif nor rabi statement, occupied 135,538 acres. The Cis-Jumna parganas grow a larger proportion of juâr and gram, and the Trans-Jumna tahsils of cotton, barley and gram mixed, wheat and barley. At page 23 Mr. Whiteway shows the proportional distribution of the chief crops in the different parganas. The statement and the preceding statistics exhibit (1) a preponderance of kharif over rabi crops; (2) a large area, in certain parganas, under juâr, gram and cotton, and a small area, in some parganas, under bâjra, wheat, cane and vegetables, and (3) an absence of rice. The prevalence of juâr and gram in the Cis-Jumna tahsils is cited as a

proof of the careless cultivation of those tracts. The character of the cultivation will doubtless improve as more advantage is taken of the irrigation available from the Agra canal which is already appreciated.

9. The census of 1872 has furnished the Settlement Officer with his population returns. The population of the district was then 729,920, of whom 671,666 were Hindus, 57,914 Muhammadans, and 340 Christians and others. The Muhammadans are found chiefly in the towns. Of the Hindus 56,173 are land-owners and 298,935 cultivators. Brahmans number 131,636; Rajputs 56,313, and Banias 44,514. The district contains only seven towns with a population of over 5,000. The largest are Muttra (61,194); Brindaban (20,625), and Kosi (12,862). Of the 18 villages containing from 3,000 to 5,000 inhabitants 12 are found in the Cis-Jumna parganas. On both sides of the Jumna the Jâts own a larger area than any other caste, next follow Brahmans, then Thákurs (Rajputs), next Banias, then Muhammadans.

10. The cultivating area under the several tenures in the whole district and on each side of the Jumna are as follows:—

	Sir.	Expropriary tenants.	Right of occupancy tenants.	Tenants-at-will.
Cis-Jumna	1,27,252	1,171	102,185	86,555
Trans-Jumna	93,390	274	97,677	130,302
Total	220,642	1,445	199,862	216,857

Jâts, Brahmans and Thákurs cultivate 81 per cent. and own 67 per cent. of the area on the left bank, while they own 72 per cent. and cultivate only 73 per cent. on the right bank of the Jumna. After these three leading proprietary and cultivating classes come Ghamárs (111,314), who own but little land, but cultivate between 6 and 7 per cent. of it. Allowing for the pahi cultivators, who held outside their own village, and thus sometimes appear twice in the returns, the average cultivating holding is about  $5\frac{1}{2}$  acres on the right, and  $7\frac{1}{2}$  on the left of the Jumna. Revenue rates prevail largely in the parganas west of the river. On the east real rent-rates are more common. Caste appears to have no appreciable effect on the rents, Brahman tenants-at-will paying higher rates than the other chief cultivating castes. As cultivators, the Brahmans (131,636) are numerically important. This caste bears but an indifferent character. The Ahiwasis, a quasi-Brahmanical tribe, carry on a large carrying trade, the tillage of their lands being left almost entirely to the women of the clan. The Jâts are the backbone of the agricultural classes: they number 140,834. In two parganas, Noh Jhil and Kosi, they hold more than half the cultivated area. At pages 32 *et. seq.* of his report Mr. Whiteway gives an account of their subordinate clans (*pál* or *got*). Thákurs number 56,313. About six-sevenths of them are of impure blood. The Gahlaut, Chauhan, and Bargujar of Sahpau and Sadabad are of pure caste. There are but few Muhammadans in the district. Converts from Hinduism are known as Malkanas. They are careful cultivators. The Banias number 44,514, more than half of whom are Agarwals. The caste is a powerful one, both from their wealth, and their large money dealings. Several of the hereditary kanúngos and the majority of the patwáris are of this caste. They occupy the position ordinarily held by Káyasths in other districts. The latter number only 3,288. The Gujars of the Muttra district, numbering 7,148, retain their old character, being poor cultivators, turbulent and addicted to cattle-lifting. In the Meerut Division the great impulse given to cultivation by the Eastern Jumna and Ganges Canals has resulted largely in reclaiming the Gujars of those parts and converting them into industrious cultivators. Of the rest of the cultivating castes, there are 4,622 Káchhis, 7,405 Mális, and 3,841 Kurmis.

11. On the left bank of the Jumna, there are several large talukas in which the several estates are so intermingled as to render their separate measurement impossible. In some of them all the estates own shares in the old parent *Khera* or site from which the present separate villages appear to have sprung. The Aira Khera taluka contains 22 separate estates with an area of nearly 18,000 acres, the Ráya 24 estates, covering nearly 12,000 acres. Except in pargana Noh Jhíl, where the tenures of some of the villages resemble those of the Cis-Jumna tahsils, the remaining tenures in the Trans-Jumna parganas present but little worthy of notice; each man's separate ownership is recorded and his rights in the common land are clearly defined. "But coming to the Cis-Jumna tahsils" (Mr. Whiteway writes) "the matter is different. Here any attempt to bring the tenures within the accepted definition of zamindari, pattidari, and imperfect pattidari would be very misleading. For although all village communities are governed by the customs of the brotherhood (*bhaiáchara*), and are therefore so allied that they should be discussed together, these customs vary so greatly in different villages that some of them would, if the definition of the Directions to Settlement Officers be adopted, be classed as zamindari, while others would be imperfect pattidari. They have been therefore divided into two classes:—"

"(1) *Zamindari*.—Which includes all cases where the estate is undivided and owned by one or more persons who manage it in common, each person's share in the profits being allotted to him according to his ancestral share.

"(2) *Bhaiáchara*.—This includes all villages owned by a cultivating village community, in which the payment of village burdens and the distribution of the profits of the estate are regulated by the custom of the brotherhood.

"The first, or zamindari tenure, is too well known to need further discussion, but the second class is deserving of closer examination. The primary division of these villages is into those where ancestral shares are unknown, and those in which they are known and more or less acted on. Where ancestral shares are unknown, a proprietor's rights in the estate are measured either by his actual cultivating possession or else by his separate possession as recorded in the *khewat*; his share in the common land in the latter case being governed by the proportion this separate holding bears to the whole divided area. All the villages coming under the first head have by the new record of rights been converted into those of the second class, with the exception of the villages of Shahzadpur in pargana Kosi and Ghatampatti, pargana Muttra, where the proprietary community still prefer to arrange yearly for the cultivation of the estate, leaving each man's share undefined. Where ancestral shares are known, separate possession is generally recorded in the *khewat*, but some times it is not. Where recorded, ancestral shares almost always govern rights in common land and sayer; but the separate possession may, according to the custom of the village, be liable to rectification according to ancestral shares, or it may not, thus constituting two separate classes. These redistributions are nearly always carried on privately by *pancháyats* of the brotherhood, but when brought before our courts can be seldom enforced. Where separate possession is not recorded, a custom of separate cultivation has always prevailed, and this therefore corresponds closely to the class last mentioned; but here partition can be always carried out by our courts." Mr. Whiteway describes in detail, at pages 42 *et. seq.*, the constitution of these *bhaiáchara* estates.

12. Occupancy tenants have doubled in number since Mr. Alexander revised the settlement records in 1851. Mr. Whiteway's returns do not include those of the Mát tahsíl, the records of which were mostly destroyed in the mutiny, or those of pargana Kosi, in which there is a very large proportion of *sir*, as the general status of cultivators has been comparatively so little modified. In the Farah villages the proportion of land held as *sir* has diminished since last settlement, while that occupied by tenants-at-will has increased largely. The area cultivated by occupancy tenants has remained almost unchanged; yet they hold more than two-thirds of the land in the possession of tenants and nearly half of the cultivation.

13. The plough statistics for the whole district, including the Farah villages, are as follows :—

Ploughs	...	...	53,797
Plough cattle	...	...	111,056

average area per plough 14·3 in the Muttra parganas and about 13 acres in the Farah villages. In the parganas on the left bank of the Jumna there are roughly two ploughs to every three cultivators, and on the right bank not more than one to every three. Besides those used for the plough, there are 251,628 head of cattle, with 6,800 sheep and goats, and 15,400 horses. The milch cows of Kosi and Cháta are famous. In the Farah villages there are besides the plough cattle 2,090 milch cows and other cattle and 5,442 sheep and goats. The number of the latter in the Muttra parganas has clearly been under-rated. Horses are bred to some extent all over the district, but most largely in the Mát tahsil, where Government stallions are kept by the zamindars.

14. \*At pages 48 *et. seq.*, Mr. Whiteway gives, in connection with the subject "condition of the people," an account of the famines, or seasons of scarcity, which have occurred since the introduction of our rule, of which more or less imperfect statistics are available. In the famine of 1813-14, in which there was terrible distress, people selling their wives and children (it is reported) for a single meal, the average prices were as low as follows, wheat 22, barley 31½, gram 23 seers for the rupee, the lowest prices being 17, 19, and 17½ seers.

In the famine of 1837-38 the prices of grain was 12 seers the rupee, and the distress was far greater than in 1813-14, but while prices rose to 8½ seers the rupee in 1868-69, nothing that could be at all called a famine, or any thing more than a severe scarcity was felt. Mr. Whiteway's observations on this subject are deserving of attention.

15. At page 51 Mr. Whiteway gives the result of his enquiries made in 17 villages in the Mát and Muttra tahsils, with the view of estimating the effect of fixity of tenure in the condition of cultivators. Of 414 occupancy tenants of 1851, 320 are still represented against 94 who have disappeared, while of 1,507 tenants-at-will 1,204 have disappeared against 303 represented. One-thousand and eighty-seven occupancy tenants, and 1,294 tenants-at-will have acquired land since the revision (1851 A.D.).

16. The third chapter of Mr. Whiteway's report is taken up with the fiscal history of the district. It is unnecessary to follow Mr. Whiteway's somewhat discursive though full details of the earlier settlements. The composition of the district has been so frequently altered that it is not easy to compare the results of the earlier and the latter assessments. "The earlier settlements" (Mr. Whiteway states) "professed to no scientific accuracy; the assets assumed were roughly the highest the zamindars would agree to give; while in no year was the full sum of the demand collected. As the machinery of the administration improved, the collections became more regular, and the gradual accumulation of experience assisted the Settlement Officer. The work continued, however, to be by rule of thumb and the elaborate statements required by Regulation VII. of 1822 did not alter the procedure. It is in the work of Mr. W. H. Tyler, who made the last settlement of the district under Regulation IX. of 1833, that the link connecting this stage with the latter developement of settlement operations such as have obtained at this settlement may be traced. In his earlier assessment in the Trans-Jumna parganas he adopted the plan of a village settlement, each village being assessed on its own merits; but in his latest reports, as in that of Mát, he intimates his doubts if this were the best method; consequently in the settlement of the Cis-Jumna parganas, which he took up later, he adopted classification of the villages and rudimentary pargana soil rates. In his latest work, however, in Muttra and the revision of the settlement of the Mahában talukas, he so far differentiated his soils that he used twelve or fifteen different rates, and, except in the soils adopted and the method of obtaining rates, there is but little to distinguish it from the work at this settlement."



17. The revenue demand of the last settlement, which was completed by Mr. Tyler, amounted to Rs. 13,38,939, being for the Trans-Jumna parganas, Rs. 7,92,131, and for the Cis-Jumna parganas Rs. 5,46,808. The settlement was in progress and all but ended when the great famine of 1837-38 (1245 fasli) came. "At that time" (Mr. Whiteway writes) "Sadabad and Sahpau had been settled seven years, Mahá-ban five years, Mát and Noh Jhíl three years, Sahar, Shergarh, and Kosi one year. In Aring and Sonkh the new revenues were to come into force in the very year of the famine, and Muttra, Gobardhan and Sonsa were untouched. A severer test for a settlement could not be imagined than this, the greatest famine of which we have any record, and it speaks well for the equity of the assessment, that it stood the test as well as it did. Writing of this district early in 1838, Mr. R. Hamilton, the Commissioner, said:—'In the district of Muttra I was surprised to find such an extensive waste. From Mursán, passing through a few villages of Sonai, the centre of Ráya, a few villages of Mát and of Mahában, the crops were scanty, the soil dry, and cultivation only in the immediate vicinity of the pukka wells. I should not suppose that the produce on the irrigated land equalled an average even when I saw it, and since then the difficulty of feeding cattle has greatly increased, as well as the labour of irrigation. Around Muttra the produce in the garden cultivation came up to perhaps ordinary years, but the people were almost in despair from the wells fast turning so brackish and salt as to destroy rather than refresh vegetation. All of the Aring and Gobardhan parganas which came under my observation was an extensive arid waste, and for miles I rode over ground which had been both ploughed and sown, but in which the seed had not vegetated, and where there seemed no prospect of a harvest. The cattle in Aring were scarcely able to crawl, and they were collected in the village and suffered to pull at the thatch, the people declaring it useless to drive them forth to seek for pasture. Emigration had already commenced, and people of all classes appeared to be suffering from the drought and the high price of grain.' The difficulty was met by extensive remissions of revenue. In Mr. Girdlestone's report the total for the district is given as Rs. 3,03,790 up to 1246 fasli. I have been able to trace those in the parganas of Kosi, Shergarh, Sahar, Sonsa, Sonkh, Gobardhan and Muttra, and find that they amounted to—

Fasli.	Rs.	Rs.
1245    ...    ...    ...    ...	1,38,099	(62,189 for Kosi alone.)
1246    ...    ...    ...    ...	15,818	
1247    ...    ...    ...    ...	1,270	

Rather more than half the remissions were therefore given in these seven parganas, while those for pargana Mát alone were Rs. 22,789 more. In spite of these liberal remissions there were several sales for arrears of revenue in Muttra and Cháta." The intensity of the effects of the famine in the Mahában tahsil necessitated the revision of the settlement of the talukas Airā Khera, Ráya, &c., the jama thereon being reduced by Rs. 5,039. Pargana Kosi had not recovered from the effects of the famine of 1837-38, the kharíf of 1840 having failed owing to the scantiness of the rains of that year, while the year following the rabi crops were injured by a very severe hailstorm. The jama of Kosi was therefore finally reduced to Rs. 1,52,024, Mr. Tyler's original assessment having been Rs. 1,63,303 (see page 76).

18. After 1845, owing to a series of bumper harvests, the district prospered, with the exception of some estates farmed in the Sadabad tahsil for recovery of mutiny arrears and the sale of some villages in Noh Jhíl for non-payment of the mutiny fine and the confiscation of some Gujar villages for rebellion. The mutiny of 1857-58 appears to have affected in no way the condition of the agricultural community. The district had improved so much in every way since the settlement, that even the scarcity of 1860-61 necessitated a remission of only Rs. 2,000 of the Government revenue. During the currency of the settlement the following areas were sold for arrears of revenue:—

- (a.) During the first 12 years, acres 64,467;
- (b.)   ,,   the next seven years, up to the mutiny, acres 2,408; and

(c.) During the last 20 years, i.e., from the mutiny to the present time, acres 9,914.

19. The area returns of last settlement are said by Mr. Whiteway to be so imperfect that they are useless for purposes of comparison. Mr. Whiteway's figures do not include those for the 84 villages transferred from pargana Farah of the Agra district, and which now form part of zila Muttra. The following are the corrected figures for the Muttra district as at present constituted :—

Total area 922,338 acres (or 1,441 square miles, 98 acres) :				
Unassessable	...	...	...	137,338 acres.
Assessable	...	...	...	785,000 "
Groves	...	...	...	4,344 "
Culturable (i.e., old waste)	...	...	...	69,671 "
Fallow	...	...	...	8,630 "
Irrigated	...	...	...	375,831 "
Unirrigated	...	...	...	326,624 "
Total cultivated	...	...	...	702,355 "

The cultivated area, excluding that of the Farah villages, was 556,812 acres in 1846-47 ; in 1852 it had risen by 51,586 acres, viz., to 608,398. Mr. Whiteway's returns show a further extension of 40,895 acres, i.e., a cultivated area of 649,293 acres. The uncultivated assessable area, including groves, comes to nearly 2 (1·9) per cent. of the total area in the Muttra, and to 10·2 per cent. in the Farah villages. The largest proportion of culturable waste and fallow, 16·3 per cent., is found in pargana Noh Jhíl, owing to the large khadar area and the presence of the large jhíl after which the pargana is named. Mr. Whiteway estimates the percentage of the "proportional rise in irrigation from last settlement to now" as follows : Sahpau 20 ; Sadabad 36 ; Muttra 108 ; Cháta 141 ; Kosi 53 ; Mát 71 ; and Mahában, since 1857, 64. The extension in the Farah villages gives a percentage of 9·03 on the irrigation of last settlement.

20. Mr. Whiteway has not attempted, for the reasons he has given, to trace fluctuations in the rent-rates of the Muttra district during the currency of the last settlement. The rent-rate has risen from Rs. 3·994 per acre at the time of the revision of records by Mr. Alexander in 1851 to Rs. 4·909 in the three parganas of Sahpau, Sadabad, and Mahában, the rise in the all-round rate being 22·91 per cent. The rise per cent. in the all-round rate of tenants (a) with, and (b) without right of occupancy in these three parganas is Sahpau (a) 11, (b) 16 ; Sadabad (a) 18, (b) 28 ; Mahában (a) 10, (b) 42. In the last named pargana the prevalence of *dhar bachh* keeps down the rise in the rental of occupancy tenants. Irrigation from the canal has been so lately started in the Muttra district as to have had no perceptible effect as yet on rent-rates.

21. Taking three periods—(1) 17 years preceding the great famine of 1837-38, excluding exceptional years ; (2) 18 years from the famine of 1837-38 to the mutiny ; and (3) 14 years since the mutiny (again excluding exceptional years) Mr. Whiteway finds that "the rise in prices during the second period was very small ; the whole almost has been confined to the last term. Comparing the prices that have ruled since the mutiny with those before the great famine, we find that wheat has risen 42 per cent. in price and gram 53 per cent. In this district, therefore, the cultivator is not only getting his share in the rise of prices generally, but is also gradually forcing the bania to give him a better price for his produce ; for whereas bazaar rates have risen for wheat only 42 per cent., the harvest rates have risen 55 per cent. The difference between harvest rates and bazaar rates for this grain was 27 per cent. for the first period, 23 per cent. for the second, and only 17 per cent. for the third. It must take time for the benefits of the competition in the export trade to filter down to the cultivator, guarded and hedged as he is by custom and long-standing obligations, but in a longer or shorter time it must reach him. The harvest prices of cotton in this district during the American war are instructive in the extreme as showing how the bania's hand must be forced by a stimulated market. As the general result of this

investigation it is proved that the whole rise in prices has been since the mutiny, and that, as compared with last settlement, the cultivator can now get 50 per cent. more all round for his produce." The figures given by Mr. Evans for the Farah villages show that there has been a steady rise in the prices of agricultural produce since the mutiny, and that prices generally may be said to be half as high again as they were at last settlement.

22. Taking private sales as the only trustworthy guides in judging the value of land, Mr. Whiteway shows that the value of land has risen from Rs. 3.44 per acre, in the period included between the commencement of the last settlement to the revision of records, to 13.98 per acre in the period included between the mutiny and the conclusion of the last settlement.

23. In pages 94 *et. seq.* of his report, Mr. Whiteway describes the natural and artificial soils of the district, the mode in which they were demarcated, in other words, the demarcation of soil areas and his method of arriving at soil rates. Mr. Whiteway has not given the soil areas and the soil rent-rates for the whole district. This portion of his report is very meagre. "The different soil areas will be found," he writes (page 98), "under their respective parganas," but he should have brought the information for the several parganas together.

24. From the figures given in page 98 it appears that the estimated rental on which the assessment of the revenue demand was based was Rs. 31,64,580, which under the half assets' rule would give a jama of Rs. 15,82,290. The revenue declared by the settlement officer was Rs. 15,34,274, being Rs. 48,016 less than the moiety of the estimated rental. The revenue fixed by the Board, after inspection of the settlement statements and sanctioning various reductions in Sadabad, Mahában and Muttra tahsils, to the amount of Rs. 3,030, was Rs. 15,31,244. The revised revenue of the 84 transferred villages of the Farah tahsil is Rs. 97,630. The total revised revenue of the Muttra district, on completion of settlement operations, and with the addition of the revenue of the transferred villages, was therefore Rs. 16,28,874.

25. Excluding the Farah villages the total cost of the settlement amounts to Rs. 6,02,973. "The extra collections from the enhanced demand have, up to the end of 1286 fasli, been (Mr. Whiteway writes) Rs. 6,04,731 from revenue alone; to this must be added Rs. 60,473 from the extra ten per cent. cess. Up to the date, therefore, of closing the settlement the extra collections caused by its operations were Rs. 62,231, more than its cost." The extra ten per cent. ought to be, it may be observed, excluded altogether from these calculations.

26. Mr. Whiteway has explained very fully the mode in which the record-of-rights was prepared throughout the district. The field map and partially the khasra were prepared by the revenue survey, the former on the scale of 16" to the mile. For filling in the columns of the khasra, for which the settlement officer was responsible, a special establishment was entertained. The portion of the work in its commencement was ably supervised by the Assistant Settlement Officer, Mr. Malcolm Reade, a young officer of rare promise, whose early death was a very great loss to Government. It is unnecessary to follow Mr. Whiteway through his very detailed explanation of his procedure. The Senior Member is aware, from personal inspection of the settlement records, that they have been compiled with very great care. Mr. Whiteway has also gone very fully into the history of the revenue-free estates, which comprise a considerable portion of the Muttra district, and of the tenures and rights of all individuals holding landed property in the town of Muttra. The information contained in pages 112 to 120 of the report will be useful for reference hereafter to the district officer. Mr. Whiteway deserves credit for his thorough enquiries and his full record of the same.

27. In conclusion the Senior Member wishes to bring to the notice of His Honor the Lieutenant-Governor the services of Messrs. McConaghey and Whiteway

in connection with the revision of the Muttra settlement. Mr. McConaghey brought to the work the experience he had gained in the Mainpuri settlement. Before his work in Muttra was completed, he was transferred to the charge of the Banda district, for which he was specially selected by the Government. The settlement was then taken up by Mr. Whiteway, by whom it was completed with the assistance only of his Deputy Collectors, of whom the late Ali Muhammad Khan was deserving of special commendation. The premature death of Mr. Malcolm Reade, a young officer of the greatest promise, was a very great loss to the settlement. The survey and measurement of the district and the preparation of the village field maps was carried out by Colonel Anderson of the Bengal Staff Corps. He worked most harmoniously with the Settlement Officer, and his accurate field-books (khasras) and field maps were of the greatest value.

I have the honor to be,

Sir,

Your most obedient servant,

J. S. MACKINTOSH,

*Secretary.*

# TABLE OF CONTENTS.

## PART I.

### CHAPTER I.—GENERAL DESCRIPTION OF THE DISTRICT.

	Page.
Boundaries	1
Revenue sub-divisions	ib.
General description	2
Physical features	4
History	9
Constitution of the district	11
Sources of irrigation	12
Canals	ib.
Effect of the canal on the water level	14
Effect of the rise of the water level on the general health	ib.
Irrigation from wells	15
Character of water supply	16
Kinds of water and their qualities	17
Decrease in the number of pukka wells during the settlement	18
Rain fall	19
Communications	20
(a) Roads	ib.
(b) Railways	ib.
(c) Water communication	ib.
Trade	ib.
Civil station and cantonments	ib.
Chief towns	21
Statistics of crops	22
Character of the cultivation	23
Police	24

### CHAPTER II.—SOCIAL CONDITION.

Population statistics	25
Distribution of the population on the area	ib.
Present proprietary statistics by caste	26
Cultivating statistics by caste	27
Effect of caste, &c., on rent	30
Colonization by castes and tribes	ib.
Brahmans	31
Jats	32
Thakurs	34
Muhammádans	35
Banias	36
Dhusars	37
Kayaths	ib.
Religious classes	38
Gujars	ib.
Ahirs	ib.
Chamars	ib.
Kolis	ib.
Other castes	ib.
Tenures	39
(a) Trans-Jumna	ib.
(b) Cis-Jumna	41
Origin of these tenures	44
Future of the village communities	45
Changes in size of cultivating holdings and in status of cultivators since the revision of records	ib.
Plough statistics	48
Other cattle, horses, sheep, &c.,	ib.

	Page
Condition of the people ... ..	48
Effect of fixity of tenure on condition of cultivators ... ..	51
Education ... ..	ib.

### CHAPTER III.—FISCAL HISTORY.

General review ... ..	52
I.—Fiscal history of Trans-Jumna parganas to conclusion of last settlement ... ..	55
(a) First triennial settlement ... ..	ib.
(b) Second triennial settlement ... ..	57
(c) Quartennial settlement ... ..	60
(d) Quinquennial settlement ... ..	61
(e) Settlements under Regulation VII. of 1822 ... ..	ib.
(f) Settlements under Regulation IX. of 1833 ... ..	63
(g) Villages received from Aligarh in 1840 ... ..	ib.
II.—Fiscal history of the Cis-Jumna parganas to the conclusion of the last settlement, ... ..	63
(a) First triennial settlement ... ..	ib.
(b) Second triennial settlement ... ..	66
(c) Quartennial settlement ... ..	70
(d) Quinquennial settlement ... ..	71
(e) Gobardhan ... ..	72
(f) Settlements under Regulation VII. of 1822 ... ..	ib.
(g) Settlements under Regulation IX. of 1833 ... ..	75
III.—Fiscal history of the expired settlement ... ..	76
(a) Famine of 1837-38 ... ..	ib.
(b) Revision of the assessment of the Mahaban talukas ... ..	ib.
(c) Ditto ditto of Kosi tahsil ... ..	78
(d) Subsequent history of the district ... ..	ib.
(e) Sales for arrears of revenue during the period of settlement... ..	79
(f) Changes in the demand during the currency of the settlement ... ..	ib.
IV.—Transfers ... ..	80

### CHAPTER IV.—HISTORY OF SETTLEMENT OPERATIONS. 81

### CHAPTER V.—ASSESSMENT.

Areas of present settlement ... ..	83
(a) Total area ... ..	ib.
(b) Revenue-free... ..	84
(c) Barren waste... ..	ib.
(d) Groves ... ..	ib.
(e) Culturable waste and fallow ... ..	ib.
(f) Increase in cultivation ... ..	85
(g) Increase in irrigation ... ..	ib.
Increase in population ... ..	86
Rise in all round rent rate ... ..	88
Effect of the canal in raising rents ... ..	89
Prices ... ..	ib.
Increase in the selling value of land as shewn by the prices realized at transfer ... ..	93
Natural soils ... ..	94
Artificial soils ... ..	ib.
(a) Irrigated and dry ... ..	95
(b) Manured and unmanured ... ..	ib.
Demarcation of soils ... ..	ib.
Method of arriving at soil rates ... ..	96
Assessment ... ..	97
Line of fluvial action ... ..	ib.
Dates for the payment of instalments of rent and revenue ... ..	98
Distribution ... ..	ib.
Revenue declared as compared with half estimated assets ... ..	ib.
Incidence of the demand of the expired settlement as compared with that now im- posed ... ..	99
Cost of the settlement... ..	ib.
Rental of the district after completion of enhancements ... ..	ib.
On whom does the burden of the settlement fall ... ..	ib.

	<i>Page</i>
Suspension of powers under section 35 of Act XVIII. necessary during general distress ... ..	100

## CHAPTER VI.—RECORDS.

History of records previous to this settlement ... ..	101
Survey ... ..	<i>ib.</i>
Preparation of records by the settlement ... ..	102
First stage.—Preparation of the records in the rough ... ..	103
(a) Hissa kashi ... ..	<i>ib.</i>
(b) Khasra ... ..	<i>ib.</i>
Disputes during preparation of rough records ... ..	<i>ib.</i>
Second stage—Patwāris' papers ... ..	105
Measurements of khadar... ..	<i>ib.</i>
Wajib-ul-arsz ... ..	106
Revenue-free tenures... ..	112
(a) Validity of the tenure ... ..	<i>ib.</i>
(b) Rights of muāfīdars and zamīndars ... ..	116
Fairing ... ..	117
Statement of case work disposed of during the course of the settlement ... ..	<i>ib.</i>
Case of Qasba Muttra ... ..	<i>ib.</i>

## CHAPTER VII.—NOTICE OF SUBORDINATE NATIVE OFFICERS.

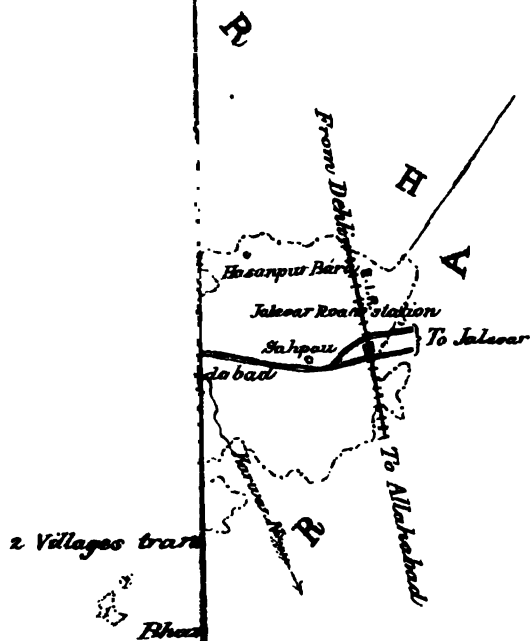
Deputy Collector ... ..	121
Subordinate officials ... ..	<i>ib.</i>





# MAP OF MUTTRA DISTRICT.

SCALE—8 MILES TO AN INCH.



District Boundaries  
Pargana District  
Rivers & Streams  
Canal & Railway  
Marshes  
Metalled Roads  
Unmetalled Roads  
Village Sites  
Hills  
Railroads



# REPORT

ON THE

## SETTLEMENT OF THE MUTTRA DISTRICT, NORTH-WESTERN PROVINCES.

### PART I.

#### CHAPTER I.

#### GENERAL DESCRIPTION OF THE DISTRICT.

Boundaries—Revenue sub-divisions—General description—Physical features—History—Constitution of the district—Sources of irrigation—Canals—Effect of the canal on the water level—Effect of the rise of the water level on the general health—Irrigation from wells—Character of water-supply—Kinds of water and their qualities—Decrease in the number of pukka wells[during the settlement—Rainfall—Communications: (a) roads; (b) railways; (c) water communication—Trade—Civil station and cantonments—Chief towns—Statistics of crops—Character of the cultivation—Police.

THE Muttra district is in shape like a carpenter's square. It lies between 77° 15' and 78° 15' of east longitude and 27° 15' and 28° of north latitude. Its whole area is 1,846.47 square miles, of which 704.45 square miles lie to the west of the river Jumna, and the remainder to the east. This river, which passes down its whole length, therefore nearly divides it into two equal parts. It is bounded on the north by the Gurgaon district of the Panjab and by Aligarh; on the east by Aligarh; on the south by Agra; and on the west by the independent State of Bhartpur. Two independent villages of Bhartpur also lie imbedded in the Muttra pargana, and between it and the Agra territory there are others. This report applies to the district before 84 villages were transferred to it from Fārah of Agra on 1st October, 1878, the settlements of which were concluded in Agra; on these a separate note is given at the end.

From the Jumna valley and its bounding line of ravines and sandhills on the west the country stretches in an almost unbroken plain to the hills on the Bhartpur border; for a short distance these hills lie within this district, and for a short distance their watershed is the boundary with Bhartpur, while, except to the south of the Muttra pargana, hills in the Bhartpur State and Gurgaon are everywhere in sight of the western boundary. To the east of the river the influence of the Jumna is more apparent, the lines of sandhills stretch further back into the interior, and the surface is more uneven. The slope of the district is from north-west to south-east; it is gradual and at the rate of about 1.28 feet per mile. The west portion of the district is slightly hogbacked, the line of highest elevation lying parallel to, but at some distance from the river. At the back of the Muttra city the land is about 583 feet above the sea-level, to the north of Kosi and Noh Jhīl it is about 620 feet, and to the south of the Sadabad tahsil about 566 feet. The hills nowhere rise to over 200 feet above the level of the plain, while the valley of the Jumna lies about 20 or 30 feet below it.

Revenue sub-divisions. There are now six tahsils which were formerly further subdivided into parganas, but this distinction is no longer recognized—

<i>Trans-Jumna.</i>	<i>Name of tahsil.</i>	<i>Parganas formerly recognised within its boundaries.</i>
1. Sadabad	...	... { 1. Sadabad. 2. Sahpau. 3. Sonai.
2. Mahāban	...	... { 4. Raya. 5. Mahāban. 6. Portion of pargana Mursan.
3. Māt	...	... { 7. Māt. 8. Noh Jhīl.

<i>Cis-Jumna.</i>	<i>Name of tahsil.</i>	<i>Parganas formerly recognized within its boundaries.</i>
	4. Muttra ...	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">...</div> <div style="border-left: 1px solid black; padding-left: 5px;">           9. Muttra.            10. Aring.            11. Gobardhan.            12. Sonkh.            13. Sonsa.            14. Shergarh.            15. Sahar.            16. Kosi.         </div> </div>
	5. Chhāta ...	...
	6. Kosi ...	...

The tahsils on the right bank of the Jumna, which may be called the Cis-Jumna as lying on the same side of the river as the civil station, differ very considerably from those on the left bank or the Trans-Jumna tahsils. In both the density of the population is about the same, being 562 in the former to 563 in the latter; but the distribution of the people is very different. The three large towns of Muttra, Brindaban, and Kosi, and most of the larger villages, lie to the west of the river, so that the density of the rural agricultural population alone being taken, there are only 492 to the square mile of cultivation in the Cis-Jumna tahsils as against 620 in the Trans-Jumna. There is also another distinction connected with this, for, whereas on the east the people are scattered about in hamlets, which bring them nearer to their daily work and allow their labour to be fully utilized, on the west they are collected in semi-fortified villages, generally built on a high mound of the debris of the houses of their ancestors; thus on the west the area per inhabited site is 965 acres and the population 849, while on the east the former is 338 acres and the latter 297. In a settlement point of view this distinction is of importance, since it affects, as well as the utilization of labour of which I have already spoken, the area of the home or more or less manured lands; the area of home lands recorded in the Trans-Jumna tahsils is 15 per cent. of the cultivation, in the Cis-Jumna it is only 8 per cent. The difference in the localization of the inhabitants to some extent depends on the quality of the water, which is in places undrinkable in the Cis-Jumna tahsils, and to some extent on the great sanctity of many of the village sites as compared with those on the east of the river, but it chiefly springs from historical causes dating from before the commencement of our rule, from a time when such fortified villages were necessary for the protection of the inhabitants from the inroads of the Jāts and of the Mahrattas, to whose flying incursions the Jumna was some protection for the parganas lying on its further side. Seventy years of peace have not been able to efface habits the growth of a time when the inhabitants were never secure from raids, but were often compelled to cultivate their fields and cut their crops with arms on their backs: and the cultivator of Muttra, Kosi, or Chhāta would to this day rather walk two or three miles to his field in the morning than change the custom.

The elements of the population are on both sides of the river much the same; in the Cis-Jumna tahsils there are more Thākurs, in the Trans-Jumna there are more Jāts. The following statement shows the proportion per cent. of the chief castes to the whole population:—

	<i>Jāt.</i>	<i>Thākur.</i>	<i>Brahman.</i>	<i>Chamar.</i>	<i>Bania.</i>	<i>Muhammads.</i>
Cis-Jumna ...	14	11	18	14	7	8
Trans-Jumna ...	24	4	17	16	5	5

Over the whole district 83 per cent. of the total area and 90 per cent. of the culturable area is under the plough; much of the culturable waste lies in the valley of the Jumna, and taking the uplands alone, there is no pargana with less than 90 per cent. of the culturable area cultivated, while Sahpau has 95 per cent., Sadabad and Māt 94 per cent. and Noh 93 per cent. But if the percentage of cultivation is only slightly larger on the east, the proportion of the irrigated area to the dry differs enormously on the two sides of the river; for, whereas in the Trans-Jumna tahsils 77·2 per cent. of the cultivated area is commanded by wells, on the west this percentage sinks to 30·4 per cent. Here, again, from a settlement point of view, the Cis-

Jumna tahsils are at a disadvantage. The water on the west is not as a rule so good as that on the east, and this has had its share in determining the irrigated area; but the chief causes have been the sparser rural population, and consequent lower rent-rates which have not reduced life to such a competition and struggle; and also the greater depth to the water level from the surface and the consequent greater insecurity of the sub-soil in the Cis-Jumna tract rendering kucha wells expensive and difficult to make: it is for this latter reason that more than one-fourth of the wells in use in it are of masonry, while on the east the proportion sinks to one-fourteenth. From this difference of the wet area springs a great difference in the kinds of crops grown. The following statement shows this more clearly:—

<i>Proportion to crop area borne by</i>					
	<i>Kharif.</i>	<i>Rabi.</i>	<i>Garden produce.</i>	<i>Arhar.</i>	<i>Double crops.</i>
Cis-Jumna	60.2	39.3	0.5	11	3.3
Trans-Jumna	52	44.7	1.3	27	5.0

Carrying the analysis further and taking the more valuable crops of cotton, wheat, and barley, we find that the right bank of the river has only 23 per cent. of these to 39 per cent. on the left bank. The great dry hárs of the Cis-Jumna tahsils, where birds are scarce as trees are rare, are sown chiefly to juár as the autumn, to be followed next year by gram as the spring crop; these easily grown and less valuable products cover no less than 53 per cent. of the total crop area there as against 25 per cent. on the opposite bank. From the more careless cultivation on the right side of the river it naturally follows that the area per plough in the Cis-Jumna tahsils is much larger (15.7 acres) than in the Trans-Jumna (12.9 acres). This, however, does not mean that the actual cultivating holdings are larger in the former than in the latter, for the reverse is the case; but this leads to another important distinction between the two—the distinction in the holdings, both proprietary and cultivating. The general results can only be noted here. The average area owned in the Trans-Jumna tahsils is 18 acres and cultivated 7 acres, while in the Cis-Jumna the former is only 15 acres and the latter 6 acres;\* but with the greater subdivision goes a greater security of cultivating tenure as the following shows:—

	<i>Cis-Jumna.</i>		<i>Trans-Jumna.</i>	
	<i>Proportion of holders to total holders.</i>	<i>Proportion of area to total area.</i>	<i>Proportion of holders to total holders.</i>	<i>Proportion of area to total area.</i>
Sir	29.9	39.5	27.0	28.7
Ex-proprietary tenants	0.4	0.4	...	...
Resident tenants with occupancy rights,	28.3	26.5	23.1	24.5
Non-resident tenants with occupancy rights,	7.2	5.4	6.5	5.6
Resident tenants-at-will	22.3	21.0	27.9	31.3
Non-resident tenants-at-will	8.4	5.8	8.6	8.9
Rent-free	3.5	1.4	6.9	1.1

Thus 65.8 per cent. of the recorded cultivators holding 71.8 per cent. of the cultivated area in the Cis-Jumna have some permanent right in land as against 56.6 per cent. holding 58.8 per cent. of the area in the Trans-Jumna. The rural Cis-Jumna population of the khalsa villages is 252,959; of these 52,988, or 20.9 per cent., appear in the papers as holding land, while 34,951, or 13.8 per cent., appear as having either sir or land with a right of occupancy. Allowing that some of these persons have been entered twice in different villages, and that at the last census the average per house was 4.6, it will not, I consider, be too high an estimate to say that they have each three persons on the average dependent on them. From this it would follow that of the rural population to the right of the Jumna 83.7 per cent. cultivate some land, whilst 55.3 per cent. have some area, larger or smaller, from which they cannot be ejected as long as they pay certain dues. The rural population of the khalsa

\* The difference in the average area owned is greater than here brought out, for in the calculation every zamindar is counted once for every village in which he owns, and in the Cis-Jumna tahsils, with their very large villages, this raises the average more than it does in the Trans-Jumna tahsils, with their smaller villages.

villages of the Trans-Jumna tahsils is similarly 319,309. While there are 46,574, or 14·6 of the population recorded cultivators, there are 26,318 persons, or 8·2 per cent., recorded as owning *air* or holding land in right of occupancy. Treating these in a similar way, we find that only 58·3 per cent., of the population has any land at all, and 32·9 per cent. any fixity of tenure. The result is striking and is not due to any great inequalities in any particular tahsil, but runs equally through all. As we shall presently see, the Cis-Jumna tahsils are noted for the prevalence of *bhaiachara* or village communities with an almost entire absence of all real rent transactions, cultivators and owners alike paying revenue-rates. This would account for prevalence of *air*, but not for the smaller holdings and the much greater extent to which the rural population actually cultivates. The less density of the rural population and the prevalence of cultivating landlords would seem to tend to the creation of large cultivating holdings, and as this is not the case, the difference must lie in the character of the landlords themselves. In fact these resident village communities are still guided by custom rather than contract, and standing as the members do, but little, if at all, raised above the main body of the people, they are disposed to treat the non-proprietary classes much more leniently than the non-resident landlord, who, generally a Baniya, too often looks on his village merely as his merchandize, from which the greatest profit is to be extracted. On the left bank there are also some village communities; but, except in the more backward parts, corporate action as it exists on the right bank has ceased, and the revenue-rates, which are so common and so distinguishing a fact on the opposite side of the river are very rare. Some of the fiercest disputes have, however, arisen in the Cis-Jumna tahsils. The peculiar tenures there existing were early known,\* but unfortunately no record of individual rights was then made; in some cases whole villages were sold for arrears of revenue, and in others the communities sold their rights, before they knew distinctly what those rights were, to intriguing speculators, such as the Lala Babu; and where, as in many cases, the community has been strong enough to hold together up to this date, keeping down the rents and almost excluding the proprietor from all participation in the management beyond receiving a fixed yearly rent, the disputes at this settlement have been protracted and bitter, each party trying to turn every provision of the law to his own benefit.

There is another distinction which may be noted between the two sides of the river, and that is in their sanctity. The whole of the area to the west, with the exception of a small portion to the south of the Muttra pargana which to a great extent partakes of the commonplace character of the ordinary *Duab*, is included in the Braj Mandal, whereas the border line of the *tirath* includes but a small area to the east, and that only of a few villages lying near the edge of the river.

On the right bank of the river the country, as I have said, stretches away in an unbroken plain to the hills; in this plain there are no rivers  
Physical features. and no hills or marshes beyond the lower-lying spots locally known as *dahars*, where the rain water collects for a few days; there are not even any well-marked lines of drainage until the western depressions.

The northernmost of these passes from Unchagaon and Barsana, where it comes round the end of the hills through the western edge of Chhata and the north-western corner of Muttra. Down this line a flood comes occasionally when there is heavy rain in the Native States beyond. The southern one starts from near Gobardhan and passes through Sonkh to the south. Except along the edge of the Jumna the mango tree does not grow on this side of the river, and the level *jharber* covered spaces between the villages are almost bare except for sparsely scattered *babul* and *faras* trees. Many of the villages, too, rise up bare and devoid of trees; but near others, especially those of old standing, there are large areas known as the *rakkhya* or *kadamb khandi*. The poorer specimens are merely uncultivated land covered with *karil*, *pilu*, *hins*, and other jungle bushes, but in the better ones there are large *kadamba* and

---

\* Acting Collector of Agra's letter of April 18th, 1918.

other fine forest trees which make these rakkhyas look like bits cut out of a real forest and the pleasantest camping-places in the district. Many are of considerable size : the largest in Kosi, Kamar, is 513 acres; Pisaya, the largest in Chhāta, is 122 acres. Pisaya is the most beautiful of all, with magnificent kadamb trees growing naturally in rows inclosing open spaces of turf. In a few cases, as the numerous rakkhyas scattered about the village of Nandgaon and the Kokilaban of Great Bathen, the forest is preserved because it is sacred as a place of pilgrimage. In the case of the other rakkhyas it is probably different; very few of them are sacred as places of pilgrimage, but still the religious feeling regarding them is so strong that a terrible curse is supposed to fall on whoever breaks up and cultivates the land. It appears probable that they represent the common land of the village reserved for grazing, and that a similar feeling to that entertained in regard to the cow by Hindus has gradually grown up in regard to these rakkhyas. Mr. Growse has shown the pastoral origin of the Hindu name of the country (Braj, a herd) and of many of the names of the villages (Muttra, a churn; Māt; a milkpail; Bathen, a cattle pasture; Gokul, a cow pen),\* which combined with the traditions of the sports of Krishna would show that at one time the district was far more pastoral and far less agricultural than it is at present. Historically, too, we know that 250 years ago very little of its area was under the plough, while as late as the battle between Najaf Khān and the Mahrattas at the end of the last century the forest of Barsana played an important part in the engagement. It is further worthy of note that it is the part of the district where these rakkhyas are chiefly found that is famous now for its breed of milch-cattle. But if not much covered with trees, many of those that are found on this side of the river are peculiar and do not grow across the Jumna. One singular feature of the Braj trees and bushes is the number that bear small unedible berries.

Of the hills there are several distinct systems. The most northerly is the Charan Pahar in Little Bathen of Kosi, a low heap of stones about 400 yards long and 10 feet high, with a temple built on it. This hillock rises direct from the plain, and the nearest elevation to it is the Nandgaon hill, six miles to the south-west; this hill is about half a mile long and is covered by the houses of the village of Nandgaon, and on its extreme summit is the Nand Rai temple. Four miles south of this is the chief system of hills in the district; the main line begins at the village of Unchagaon and runs along the boundary between Muttra and Bhartpur, the watershed being the dividing line for four or five miles until it leaves the district at Nagra. These hills are covered with rough boulders of the same character as the hills themselves; they are for the most part entirely barren, destitute even of trees, and nowhere rise to a greater height than 200 feet. They rise suddenly from the plains, and are impassable except to persons on foot or unladen ponies. The denudation from them has produced a broad belt of sand at their feet; this sand is locally known as *wal*, and, with a few striking exceptions, is entirely devoted to inferior autumnal crops. It is underlain by boulders of a similar character to the neighbouring hills, and is in all probability a continuation of them below the surface. About three-fourths of a mile to the east of the main range and parallel to it lie three detached hills. The southernmost one is only a quarter of a mile in length, and on it stands the village of Rankauli. About half a mile beyond is a smaller hill separated by a narrow pass from another which rises abruptly at the village of Dhabala, to end as abruptly at Barsana, two miles further north. The Rankauli hill has a few trees on it, and the northern half of the Barsana hill from the village of Manpur (which occupies a depression in its centre) is densely wooded with the curious *dho* tree and crowned with several temples of great sanctity. Between these hills and the main range the soil is almost pure sand. In the Muttra pargana the chief line of hills is the Gobardhan range, which is about five miles long and which stands about 100 feet above the plain at its southern end, while at the north it is

\* J. A. S. B., Part 1., No. IV. 1874,

little more than a heap of stones. The whole of this hill is of the greatest sanctity ; it is wooded with *chhonkar* and other trees, and has on it numerous temples. In a settlement point of view this range is not of great importance.\* These hills are composed of quartzose. The Charan Pahar and the Gobardhan hill are mostly boulders, while the other ranges have rock *in situ*. On the west the proximity of the hills produces a line of lighter soil, but beyond this the general hár is very uniform, broken only in places by narrow veins of bhúr or sand ; it is best on the north in Kosi, where there is some good firm real dumat, locally known as *kari*. Larger or smaller similar patches are found in many of the Chháta and Muttra villages, but the more prevalent soil is a productive *piliya*, a lighter but still strong loamy soil. Within limits this soil varies ; in places it is hard and clayey, in others there is a larger admixture of sand. Speaking roughly, the hard and clayey variety is found chiefly in the villages from Kamai of Chháta on the north, to Padal and Kunjera of Muttra on the south ; in the remainder of the villages the lighter soil predominates. The one great need of the country is water, and that the Agra canal has now supplied. Where water is plenty, as round Sonkh in the Muttra tahsil, the industry of the Ját cultivators produces the most excellent results. This want of water combined with the peculiarities of the natural soil is the cause of the great susceptibility of this tract to famine. The soil in years of drought becomes caked and unworkable, while the generally salt character of the wells prevents their use independent of rain. But if the fall from prosperity is sudden, the rise again is equally so. So large a portion of the population has an interest in the land that all who can possibly live through the calamity remain ; and though in one year even the lightest assessment could not be met from the resources of the people, in the next a heavy one could be paid with ease. On this great central slightly drained plain all the rainfall is utilized and the richer particles of the soil are not carried away ; but nearer the ravines of the Jumna this is not the case : the slope there causes denudation, and for a greater or less distance from the ravines down the whole length of the river-face the village *hárs* with few exceptions are inferior. The ravines proper do not begin until just north of Shergarh ; above that the river bank consists of sandy downs, in places sparsely cultivated, but generally growing only *sarpat* grass. From just above Shergarh the ravines run with few breaks down to Brindaban ; they are of the usual character—unculturable soil with nodules of kunkar. In the south of the Muttra tahsil is an old bed of the river known as the Koila jhíl, and south of it the ravines begin again. The manner in which ravines and sandhills alternate depends on certain conditions in the direction of the stream. Where the river flows in a sweep or curve, ravines are almost invariably found on the concave side, whilst on the opposite or convex side sandhills are as invariably met with. On a change in the direction of the curve ravines and sandhills change places also, and in the few instances where the river preserves a straight course for any distance ravines and sandhills occur on both banks. From the ravines there is a sudden drop of 15 or 20 feet to the valley of the Jumna. In very few places does the river run under this bluff ; there is usually a wider or narrower strip of alluvial soil ; in places, this soil changes yearly in shape and character and is covered by every rise of the river ; but elsewhere the deposit is older and is raised above all save the most extreme floods ; in places even old trees, masonry wells, and inhabited villages show how long it is since the soil was thrown up. But this old khádar land itself is insecure, and of recent years, the destruction of the inhabited site of the village of Jaitpur in Chháta, with its old trees and wells, shows that the river is liable to change even after long flowing in one course. The soil of these lowlands varies from sand to rich loam ; the richest of the loam is found in the *katris* or fields along the edge of the stream which are liable to yearly flooding. The chief staples are naturally spring crops and melons, though cotton, juár, and Indian-corn are grown in the less exposed portions. To the rule of *dhar dhurra* or deep-stream boundary between the villages and tahsils on the opposite banks there are only two exceptions—

\* Near Gopalpur, in the south of the Muttra pargana, is a curious elevation of hard red earth seamed with ravines and containing nodules of quartz. It is far from any hills, but is of a similar formation to the hillocks at the foot of the Chháta ranges.



Chaundras in the north of Kosi has some land on the left bank, and Jahángírpur on the south of Mát on the right bank. This latter exception was caused by a sudden change of the stream a few years ago which swept through the middle of the Jahángírpur khádar, cutting it in half and attaching one-half to the Muttra side. The greater part of the cultivated valley lies in Kosi, Chhátá, and the north of Muttra ; it is the same on the opposite bank, where the khádar land is only found in any quantity in Mát and the north of Mahában. Southwards the river is confined more closely between its bluffs, and the edge of culturable land on each side is more narrow and precarious. To the north from bluff to bluff averages for long stretches—two miles and more; to the south hardly half a mile. The peculiarity of the river bed has necessitated the demarcation of large areas as liable to fluvial action. The ravines on the left bank differ in no respect from those on the right, except that they begun considerably lower down the stream at Bhadaura. Above Bhadaura, on the left bank, where there are no ravines, the river has in former times changed its bed, and its former courses are marked by well-defined depressions or old beds. The most important and well known of these is the parabola-shaped lowlying tract of country in which the Noh Jhíl is situated. On the north this depression leaves the present bed of the river between Musmina and Farídampur, and curving round by Kaulana and Noh rejoins it between Lana Makhdumpur and Firozpur. The whole course round the curve is about ten miles, and the area of the lowland included about 13 square miles. From the local traditions and the appearance of the country it is clear that the river has left this bed at a comparatively recent period. The soils here divide themselves naturally into what was the old bed of the river and what were the sandbanks, while round the outer edge of the curve there is a steep bank or cliff of about 20 feet in height, which is in many places hollowed out into rugged ravines. The inner curve encloses a mass of sandhills, such as are usually found in re-entering bends of the Jumna itself. Originally all the villages round this great depression were colonized by Nohwar Játis, and the land of the jhíl belongs to the adjoining village on the uplands, except in the cases of the three Arazi Kashts of Dalu patti, Sultan patti, and Parsauli, and the two Lanas of Kasba and Kaulana. The first three originally belonged to Bajna, which one generation after its first colonization was split into the four pattis of Dalu, Sehu, Sultan, and Parsauli. The bángar portion of Sehu alone ran down to the jhíl, and therefore the others were given a share in the khádar land away from the main village, and these have since been made into separate estates. It would from this appear that the arrival of the Nohwars in Noh Jhíl preceded the drying up of this river bed. The case of the Lanas is different. All four Lanas originally belonged to Bhenrai ; but early in our rule this possession was considered a usurpation, and Bhenrai was shorn of the four Lanas, two being made from land thrown up towards the present bed of the river, and two from that thrown up towards the old bed. The word Lana is peculiar to this part of the country and it means a long narrow field. Such fields are common in alluvial land, and as accretions at the end of the field would generally belong to the owner of it, in a secondary sense the word has come to mean a share, so that Lana Kaulana is the share of newly thrown up land belonging to Kaulana. This tract is uninhabited and almost entirely bare of trees or bushes, while dotted over it here and there are long and narrow ponds or lakes shaped like river beds, which at certain seasons of the year are connected into one sheet of water. Marshes, however, there are none, as the land is uneven in surface and the drainage good. Within the last few years the Jumna seems to be endeavouring to return to its old bed. The mouth of the depression at Musmina was originally closed by a bank. Over the top of this in the highest floods only a little water trickled, and this was stopped by the rising ground near Marhuaka and Abhaipura before the deepest part of the jhíl was reached. At the other end of the depression near Firozpur there was a backwater through an old cut known as the Dhundar nala, which was useful in filling the ponds or lakes sufficiently to supply the cattle with drinking water during the summer months, but not sufficiently to injure the autumn crops. By the shifting of the stream

the high bank near Musmina has been cut away, and when the river is even in moderate flood, a large body of water pours through the gap into the jhíl. As a consequence much valuable land has been submerged, so that spring crops cannot even be sown on it; while a good deal of the remainder has been soured by the excess of water, and will produce but poor results until after some years of good cultivation. There have been therefore of late years many remissions of revenue in the villages affected. The Jumna floods are not necessarily injurious to the land. Where the soil is a stiff clay, the sand or soil suspended in the water mixes with it and produces a rich land that will bear upirrigated wheat, but which without the flood could only bear gram. This is locally known as "pahs parjana." Before, however, the centre of the jhíl is reached the water has parted with its suspended soil, and "pahs" is hardly known one mile from the river bed. Many of the villages owning the land of this tract are zamindari and uninhabited; and as the sustaining power of the land depends on the worst, and not on the best years, when, as in the year I inspected it, there is a larger area than usual left dry, the cultivators of surrounding villages will not risk the chance of a crop from the deteriorated land, preferring to graze their cattle on the short sweet turf of the fallow. This in most villages they are allowed to do unrestrained. In famine years, when fodder in all other land fails, the grass from here keeps alive large herds of cattle, and persons come from Muttra, 30 miles away, to scrape and carry away bundles for sale. Another point in connection with this piece of country must be also remembered. In years of light rainfall the whole surface becomes iron bound from the heat, and unless there has been sufficient moisture to loosen the soil, the native ploughs will make little impression on the surface. In places in the year 1877-78 shallow wells were dug, and with the assistance of the water so obtained a small area was cultivated and sown. The efforts yet made to grapple with the evil of the floods have failed. They consist of spurs at Musmina, paid for by Government, which were intended to divert the course of the river, but which have instead been swept away by the force of the stream, and a deepening of the Dhundar nala, paid for by the zamíndars and intended to afford a quicker drainage from the centre of the jhíl. Had the spurs stood and fulfilled their intention by diverting the stream, they would have been of little use without a reformation of the high bank that has been cut away. All this tract has been included in the land subject to fluvial action, and engagements have been taken for five years only. Apparently the depression between Firozpur and Lana Makhdumpur was that by which the river escaped when this bed was being silted up, but originally a branch from it, at the least, seems to have run in an easterly direction, leaving the jhíl near where Noh now stands, and passing thence between Mubarikpur and Baghara into Barauth, where it joined the bed of the Patwaha. This bed joins the present bed of the river at the village of Mírpur. According to the traditions of the Narwar Játs the Jumna was leaving this bed when they colonized Palkhera, some five hundred years since. Along the left bank of this depression are a line of ravines. The third depression leaves the present course of the river near Unawa, and after passing by Akbarpur and Harnaul rejoins the present bed at Ilauli Guzar, near where it left it. This line is also marked on its left bank by small ravines, but the river would seem to have abandoned it very many years ago, for the traditions of the people as to its origin are very faint. In these two last depressions the soil does not differ from the corresponding soils of the uplands. The only other jhíls on this side of the river are two, also in the khádar—the Moti jhíl near Mát and the Panigaon jhíl of Mahában close by. In the uplands there are no jhíls or morasses. The left bank of the river, however, differs from the right in having two rain streams. The Patwaha nála comes from the Bulandshahr district, and after a short course through a narrow valley in the Noh Jhíl pargana joins the Jumna; it runs for a short time after heavy rain. The other, the Karwan or Jhirna nadi, is more important; it crosses the Sadabad pargana in a course parallel to that of the Jumna; a good deal of water comes down it during the rains, but it soon after dries up. It drains a tiny valley of about two or three miles wide on each side, the boundary line of which, as well as that of the Patwaha, is

marked by denuded sandy slopes. Neither of these streams is of any account for irrigation. Along the edge of the river in the Trans-Jumna tahsils the sandbanks stretch back more or less into the country, and there are also a few independent systems of sandhills. But apart from this, the general soil is a light easily worked loamy piliya; in places this varies to a rich brown loam, the best soil of the district. On this side of the river the mango tree grows readily; the *faras* is more thickly planted, and this greater prevalence of trees and the thickly scattered hamlets give the whole country a more cultivated air. The soil on the west is on the average as good as that on the east, while the weed *baisuri*—the pest of Sadabad, Mahában, and part of Mát—hardly grows on the Cis-Jumna side, and nowhere so as to interfere with cultivation being replaced by the useful *jharber*. But the greater facilities for irrigation with the rather greater prevalence of Játis renders the Trans-Jumna parganas far more productive than the Cis-Jumna.

Muttra is at present known as one of the headquarters of the Vaishnavite religion in India, and the whole district is saturated with legends and traditions of the sports of Krishna and his companions; so that hardly a village within the circle of the *Braj Mandal*, and certainly not one of any age and importance, exists in which is not localized some deed of the god. Like most places which are now held sacred by the Brahmanical Hindus, it was in earlier times a place of great sanctity among the Buddhists. The sculptures which have at various times been found within a few miles of the present city of Muttra give us the earliest glimpses of its history. Judging from them, it would appear that as early as the second century before the Christian era, the Buddhist religion was flourishing here, and that the authors of such elaborate and carefully finished works must then have attained a high degree of civilization. Six hundred years later, when the Chinese traveller Fa Hian visited the city, the Buddhist zeal was at its height; but if that dark struggle with the Brahmanical religion of which we have no history had not then begun, it must have commenced soon after, for when the second Chinese traveller Hwen Thsang came in 634 A. D. he found Buddhism considerably decayed. The next three hundred years saw the struggle finally ended, for of Buddhism no traces remained when Mahmud of Ghazni's invasion came in 1019 A. D. After attacking and slaying Kul Chand, Rája of Mahában, the conqueror found no difficulty in taking Muttra, which he occupied without a struggle. The admiration which he expressed for the architecture of the city did not prevent his utter destruction of it by fire.\* It was long before the city recovered the destruction which had overwhelmed it; it disappears for 300 years from history, and the country around would seem to have remained under the power of the robber tribe of Mewatis, who had their headquarters in the present district of Gurgaon. They were subdued by the Dehli emperors early in the fifteenth century. The odour of sanctity seems still to have clung to the old spots, and about this time there was a revival in their favour. Late in the fourteenth century we find Hari Dás and other ascetics living near where Brindaban now stands,† and it is from this time that can be dated the growth of all the legends of modern Vaishnavism. In the next one hundred years the movement thus begun grew rapidly and had acquired such a head that the bigot Sikandar Lodi considered it necessary to prove his devotion to Muhammadanism by destroying all the temples in the city‡. The country round remained long a wilderness. Until Sher Shah, the Afghan emperor, made his road from Agra to Dehli with sarais at every stage, travellers between those cities could not venture through the Muttra jungles, which were the haunts of many robbers, but passed through the Duáb.§ In fact the Muttra jungles remained on till far later in time, and were the favourite hunting-grounds of the Agra emperors. Of their exploits in them there are many stories. Abul Fazi tells as one of Akbar's miracles that he mastered there with his eye an infuriated

\* Elliot's *Historians*, Vol. II., pages 43-44

† J. A. S. B., Vol. XLV., Part I., No. III.

‡ Elliot's *Historians*, Vol. IV., page 447.

§ Ditto, Vol. VI., page 188.

tiger about to spring on a favourite servant; Jahángir in his Memoirs relates with pride a successful shot of his empress Núr Jahán, who killed a tiger with one ball fired from an elephant unsteady through fear; while as late as 1634 Sháh Jahán killed four tigers in the jungles of Mahában on the opposite side of the river. Gradually Hinduism had been recovering from the attack of Sikandar Lodi. The Hindús were for some time an oppressed race, but under Akbar a better era dawned for them. In the 22nd year of that emperor's reign, the highest officer of the empire, Abdul Nabi, Sadr Sadúr, was deposed for putting to death a Muttra Brahman who had appropriated the materials collected by Kázi Abdul Ráhmaan for building a mosque.\* It is to this reign that we owe the four chief temples of Brindaban, one of which is from an architectural point of view of the highest importance, and the Hardeo temple at Gobardhan. The great Kesava Rae temple in Muttra was built during the reign of Akbar's son, Jahángir, by Bir Singh Deo, the Bundela, who had purchased his emperor's favour by the murder of his enemy, and his father Akbar's favourite, Abul Fazl. Except as a hunting-ground neither Jahángir nor Sháh Jahán troubled themselves much about Muttra, but it became a favourite place of residence of Aurangzeb, the successor of the latter. He, bigotted Muhammadan as he was, was scandalized by the growth and impunity of the Hindu religion. He endeavoured to crush it by the destruction of the Kesava Rae temple† (1669), and by defiling the great Gobind Deo temple of Brindaban by building a prayer wall on its top. On the site of the former he erected the mosque which, standing on elevated ground to the west of the city, still forms one of its most striking objects. His oppression of the Hindús and his endeavours to suppress their religion resulted in a revolt in the Duáb parganas. Abdul Nabi (the builder of the second great mosque in city), the governor of Muttra, was killed by the insurgents near Sihora of Mahában, ‡ and fresh troops had to be sent against them before tranquillity could be restored. Seventy years later these Mahában Játs again revolted and again succeeded in defeating and killing the imperial governor§. Among the numerous aspirants to power that arose during the relaxation of all authority that marked the later years of Aurangzeb was one on the western edge of this district. Bhajja was a petty Ját zamíndar of Sinsani, a village between Díg and Kumbher, who commencing with a small following as a robber succeeded in founding a family known from the village whence they sprung as Sinsinwar Játs, and of which the present Rája of Bhartpur is a lineal descendant. Before the death of Aurangzeb he and his followers had plundered the whole country round, not even sparing the imperial trains, and had defeated the expeditions sent to chastise him. Impunity and success so raised the power of the family that in the time of Bhajja's son, Chúraman, its alliance was sought by the Barha Sayyad and powerful minister Abdulla Khan in his conflict with his master, the emperor Muhammad Sháh. In the battle at Sháhpur in Kosi (1720) which followed between the opponents, Chúraman (wretch, rascal, and villain as the imperial historians called him) acted on the side of the minister, but confined his efforts to the congenial task of plundering the royal baggage and pack-animals which had been placed on a sandbank of the Jumna for safety. || In this battle the emperor was successful and Chúraman fled. Two years later vengeance was taken on him by an imperial army under Sáadat Khán, Subadar of Agra, and Rája Jai Singh, who defeated and drove him into his fort. To avoid capture he was compelled to blow it up and perished in the ruins. The gradual paralyzation of the power and influence of the Dehli emperors prevented any following up of this success, and the power of the Játs was checked, but not destroyed. They continued to play a considerable part in the troubles of the last century. In 1757 Ahmad Sháh Durrani sacked Muttra, carrying away with him great booty. In emulation of his predecessors he attempted to throw over this act, which was a mere raid for plunder, the cloak of religious bigotry. ¶

---

\* Elliot's Historians, Vol. V., page 543.

† Ditto, Vol. VII., page 184.

‡ Proceedings, A. S. B., No. I of 1873.

§ Elliot's Historians, Vol. VIII, page 60.

|| Ditto, Vol. VII, page 512.

¶ Ditto, Vol. VIII, page 186.

In 1776 the Jâts were finally driven from the district by Najaf Khán. On his death in 1782 the Mahrattas under Scindhia gained possession, and from them we obtained it by conquest under the treaty of Anjangaum of December 30th, 1803.\*

The district has therefore always been governed by powers from without; no indigenous family has ever risen to importance, and to this day the only zamíndars much above cultivators in rank are a few, chiefly Baniyas and all non-resident, who have risen during our rule. This fact is of great importance in the history of the Muttra district.

In the *Ain Akbari* this district was included in the Agra, Kol, and Sahar Sirkars of the Agra Suba. The then parganas were distributed as follows :—

<i>Sirkar.</i>		<i>Then pargana.</i>
Agra	...	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">{</div> <div style="display: inline-block; vertical-align: middle;"> Mahában. Muttra. Maholi. Mangorra. Jalesar (part of). Khandauli (part of). </div> </div>
Kol	...	...
Sahar	...	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">{</div> <div style="display: inline-block; vertical-align: middle;"> Noh Jhil. Sahar. </div> </div>

The existence of a Maholi pargana with its headquarters only just outside the Muttra city shows how small a territorial division must have been known under the latter name. Mangorra is a large village in the south-west of the district, and in the pargana of that name were included Sonkh and Sonsa. Sadabad was formed by Sad-ulla Khan Vazir, from whom the headquarters are named, in the reign of Sháhjahán, from 200 villages of Jalesar, 80 of Mahában, and some of Khandauli now in Agra. Aríng was made from part of Sahar when the Muttra district was formed, just before last settlement. Sonai, Raya, and Mát came out of Mahában and Sahpau of Jalesar. Noh Jhil has remained unchanged. Shergarh and Kosi were separated from Sahar in the last century by the Jâts, who also demarcated off a pargana of Sháhpur, which has since disappeared. Gobardhan was made out of a few villages of Sonkh and Sahar late in the last century by Najaf Khan and given in jágir to Raza Quli Beg. About the time of Aurangzeb Sirkar Sahar seems to have disappeared, and Sirkar Muttra, or as courtly historians called it after 1669 Islamabad,† was formed. On our acquisition of the country the district was divided as follows :—

Fatehgarh district	...	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">{</div> <div style="display: inline-block; vertical-align: middle;"> Noh Jhil. Sadabad. Sahpau. Ráya. Mát. Mahában. Sonai. Muttra. </div> </div>
Etáwah	...	...
Agra	...	...

Of the remaining Cis-Jumna tahsils, Gobardhan was granted free of assessment to Kuar Lachhman Singh, a younger son of Ranjít Singh of Bhartpur. Kosi, Shergarh, Sahar, Sonkh, and Sonsa (including Aríng) were also granted away, to whom is rather obscure. Holt Mackenzie in para. 145 of his minute of July 1st, 1819, speaks of them as relinquished by Scindhia in 1808. Regulation XII. of 1806 annexes Sonkh, Sonsa, and Sahar to the district of Agra, saying that, after the treaty of Anjangaum, they had been made over by the British Government to the Rája of Bhartpur, and relinquished by him under the treaty of April 17th, 1805; although in the copy of this treaty in Aitchison there is no mention of these parganas. The correspondence between the Resident with Scindhia and the Collector of Agra in 1808, when this territory was finally given up to the English Government, speaks of the parganas as having been the jágir of Balla Bai, Baiza Bai, and Chumna Bai; and from the treaty of Mustafapur with Scindhia, dated November 22nd, 1805, I find in article 7 a promise on the part of the English Government that a jágir in Hindustan on the same footing as that enjoyed by Balla Bai, and of the value of two lakhs yearly, should be

\* For a full history of the Jâts see Elliot's *Historians*, Vol. VIII, page 360 and following, and Mr. Growse's *District Memoir of Muttra*, Vol. I, page 21 and following.

† Similarly in all old documents Bindrabán is always Mominabad.

given to Baiza Bai, wife of Scindhia, and of one lakh yearly to Chumna Bai, his daughter. From these facts I infer that, soon after the treaty of Anjangaum, Kosi and Shergarh were restored to Scindhia as a jágir to Balla Bai, and that Sonkh, Sahar, and Sonsa were immediately on the conclusion of that treaty given to the Rájá of Bhartpur. That after the defeat of the latter by Lord Lake in 1805 these three last parganas were resumed by the British Government, and immediately after made over to Scindhia as a jágir for his wife Baiza Bai and daughter Chumna Bai, to be finally restored to the English with Kosi and Shergarh in 1808 in lieu of a money compensation. But although paying no revenue to Government, it would appear that the two former parganas were considered part of the British territory from 1803 and the three latter from 1806. Gobardhan was annexed to the Agra district by Regulation V. of 1826. In the preamble of this regulation it is said that the pargana was resumed in consequence of the death of Lachhman Singh; but in the first settlement report, dated July 9th, 1828, the Collector of Agra speaks of the pargana having reverted to the British Government after the fall of Bhartpur in 1825, and it seems probable that the grant was resumed in consequence of the war of that year, and not in consequence of the death of Lachhman Singh. In 1804 the Aligarh district was formed, and the parganas now in this district which had been given to Fatehgarh and Etáwah were incorporated in it. In 1824 the new district of Sadabad was created, and to it these parganas were attached; and in 1832 the civil headquarters were removed to the Muttra cantonment, a slight rectification of the frontier with Gurgaon was made, Kharaut being received in place of Biruki transferred, and the district as it stood at the last settlement was constituted. Muttra was taken from the Fáraha tahsíl, and with Sonkh, Sonsa, Gobardhan, and part of the Sahar tahsíl (made into a new pargana and called Aring), made into the Aring tahsíl with a peshkar at Muttra. Part of Kosi was joined to Sahar and the two tahsils of Sahar and Kosi made. In 1840 talúkas Sonkh, Madim, Dunetiya, and Ar Lashkarpur, with some miscellaneous villages, were transferred from Aligarh. From that year till 1872 the boundaries of the district remained unaltered. In 1859 the tahsíl was moved from Sahar to Chháta, the tahsíl of Noh Jhíl abolished, and a new tahsíl of Mát and Noh Jhíl made. In 1867 the headquarters of the home tahsíl were moved to Muttra. In 1872 Jalesar was transferred to Agra, but for settlement purposes remained under the Muttra settlement. On October 1st, 1878, 84 villages of the Fáraha tahsíl of Agra, of which the settlement had been made in the Agra settlement, were transferred to Muttra.

Irrigation is either from wells or canals. The irrigation from other sources as tanks and rivers is so rare as to be unworthy of notice. In fact in many villages there is a strong religious feeling against using the water of the village tanks for irrigation: it is kept for the cattle in the hot weather.

On the left bank of the Jumna the only canal now in use is the tail of a distributary in the Noh Jhíl pargana which waters six villages: the supply is uncertain, and therefore only barley and gram mixed, and other crops that do not require certain and constant watering, are grown. Another canal, to be called the Mát branch of the Ganges Canal, is planned to run down the whole length of the Mát, Mahában, and Sadabad tahsils from the Patwaha to the Jhirna; it is as yet only under discussion, though a short length of it was dug in the rains of 1878 as a famine work. The greater portion of the tract it would command is already commanded by wells. Thus the Mát pargana has 71 per cent. so commanded, the Mahában tahsíl 80 per cent., and the Sadabad pargana 88 per cent., while the soil of many of the villages is of that light character which does not bring out the full value of canal water as a productive agent. It is true that much of the well water now used is undrinkable, but at the same time it must be remembered how excellent much of this undrinkable water is for spring crops. Let the Maháwat or winter rains be never so good, a Sadabad or Mahában Ját will not be satisfied unless he has given his crops one or two waterings from his well. At the same time so diverse are

the qualities of the water of different wells that there are some villages which would greatly benefit by the introduction of canal water.

But if this can be said of the projected Mát branch of the Ganges canal, nothing similar can be said of the Agra canal in the Cis-Jumna tahsils; this canal, running along the ridge or hogback of this tract, opens out the possibility of irrigation to a country that only wanted water and an industrious population to develop it. The great and rapid extension of the irrigation since it was first opened four years ago shows how much it is needed and appreciated:—

					<i>Kharif.</i> Acres.	<i>Rabi.</i> Acres.
1874-75 ...	...	...	...	...	...	3,722
1875-76 ..	...	...	...	...	2,059	6,948
1876-77 ...	...	...	...	...	5,015	8,137
1877-78 ...	...	...	...	...	17,314	34,543

The enormous extension during the last year is of course due to the drought. The great drawback to the greater use of the water is the rule that Government only makes the main distributaries, and that the zamíndars must make the minor ones. For a rich landlord to apply to the Collector to have land taken up in the next village to make his water-course is an easy matter; but for a petty proprietor to incur the odium of an application, not only for land to be taken up from the next village, but from his neighbour's field, is practically impossible. By degrees, of course, irrigation will spread, for where water has once gone it will be taken always, and the drought of last year gave it a great impetus. As far as it has gone it has worked great changes in the system of agriculture. The statistics of this settlement were prepared before the canal irrigation had had any appreciable effect; but since that time along the canal distributaries sugarcane has been planted extensively, the coarser kharif crops as juár have been greatly superseded by the more valuable ones as cotton, while even indigo has been sown in some villages. It will, however, take time for the careless system of cultivation so common among the Thákurs, the Gújars, and the Ahiwasís of this tract to be superseded by industry. At this settlement no notice in assessing rates has been taken of the canal irrigation. The inspection took place in a year when the marks of the original well irrigation were still clearly discernible, and the wet areas were taken on the state of irrigation before the introduction of the canal. Owner's rate is therefore payable on all fields recorded by us as dry which have since been irrigated from the canal. But there is one point of view in which it is impossible in assessment to entirely forget the canal. Villages which can take canal water have, as it were, an insurance against drought and famine of a certain efficiency which cannot be ignored. In assessing such villages, therefore, the factor of possible adverse seasons is not so important an element in the calculation as it is in villages not possessing similar advantages. As a protector against famine the value of canals is great, but even in the land close to the distributaries this value has its limits; thus in 1877, when the rains failed in August and September, the juár would not come to seed in the hot winds that blew, and the cotton refused to blossom until after the heavy fall of rain early in October, when the trees were immediately covered. The villages near the main canal have, however, suffered in two ways from its introduction: from the paucity of bridges over the main canal a cultivator in an outlying cut-off corner of the village has sometimes to go four or five miles to his work; and although from the rise in the water level his kucha wells have fallen in, he is not allowed to irrigate from the canal. This latter hardship is, I believe, under the consideration of the Canal authorities. From enquiries made during the hot weather of 1878 I find that all the kucha wells in villages through which the main canal passes, and from which over 5,000 acres used to be watered, are now useless. The rise of the water level is the cause of the destruction of these kucha wells.

To determine how far the water level has been affected by the canal, I had several wells under the influence of the canal measured during the hot weather of 1878, with the following result :—

Tahsil.	Distance from the canal or distributary.	No. of wells measured.	When previously measured.	Average rise of water level.
Kosi	Up to 2,000 feet	63	Cold weather of 1875-76	4.9
	2,000 to 4,000 do.	49	Ditto	4.3
	4,000 to 6,000 do.	35	Ditto	4.0
	6,000 to 8,000 do.	24	Ditto	3.9
	8,000 to 10,000 do.	14	Ditto	3.2
	10,000 to 12,000 do.	10	Ditto	3.3
Chhāta	Up to 2,000 do.	40	Hot weather of 1875	7.4
	2,000 to 4,000 do.	45	Ditto	6.5
	4,000 to 6,000 do.	14	Ditto	4.4
Mathe	Up to 2,000 do.	101	Ditto	6.6
	2,000 to 4,000 do.	45	Ditto	4.2
	4,000 to 6,000 do.	9	Ditto	4.0

With regard to these figures there are some points to be remembered. Mere distance from the canal or distributary is only one element in the cause affecting the rise. Percolation tends more strongly along the lines of natural drainage, and a well on such a line, though farther away, will be much more affected than one hard by. The former Kosi measurements, too, were made in the cold weather, when the water level is naturally rather higher than in the hot, and at a time when the canal had been running some little time and had had some effect. The excessive rise in Chhāta is largely due to the great depth to the water originally in several of the wells measured. The recent measurements were made after the drought of 1877, and measurements of 63 wells apparently not affected by the canal showed that the average fall from this cause was 2.7 feet. Percolation from the canal tends, however, to retain the water level at a uniform height both in hot weather and cold and in seasons of drought and heavy rainfall. If the Māt branch be completed, the whole district except the ravines, the khādar, the extreme west, where the water cannot reach, Noh Jhūl north of the Patwaha and Sadabad east of the Jhirna, will be commanded by canals.

The actual effect of a canal on the general health is a difficult question, and one which would require lengthened enquiry and investigation to satisfactorily determine. A canal can affect health in three ways; *first*, by its effect on the climate generally through surface irrigation; *second*, by its effect in interfering with natural drainage; *third*, by sub-soil percolation. The effect by sub-soil percolation is a not very obvious one, and is, it seems to me, most important. From the character of the well supply in this district, it is clear that in certain portions of the sub-soil there are certain soluble salts or other matters which are carried by percolation into the wells, and which render the supply of water in these wells deleterious to man. So far is clear, and it is clear that if canal water percolates through a stratum impregnated with soluble salts or other matters that can be carried along, the water filtrating into the wells must be affected. It is further clear that a rise of the water level by joining the drainage basins, and by bringing the water through strata not previously subjected to the action of percolation, except the downward percolation of rain water, must increase the chance of deleterious matter being carried into the drinking wells and thus, too, the chance of affecting the general tone of health. This, then, is not only a possible cause, but a necessary cause in certain cases, and its effects would be shown not by causing any special disease, but by so lowering the general health as to render the population affected more liable to any epidemic that might be raging. It is a cause too, which would come into operation after heavy rainfall, when the spring level rises



and when the sickness is generally great, and would act less powerfully after a drought, when the general health is notoriously good. The autumn of 1878 was one of the most unhealthy on record in the Cis-Jumna tahsils of the Muttra district : the epidemic of fever raged generally over this part of the district ; it showed itself in special virulence in many isolated villages, but in no continuous tract did it show itself so destructive as along the line of the canal. Along this line, too, the people complained that their drinking water seemed changed, though they in no way connected this with the canal. To test the mortality a census of certain villages two months after the cessation of the rain was made with the following result :—

*First class ; villages through which the canal passes.*

Pargana.	Number of villages.	Original population.	Deaths in two months					Percentage on original population.
			Men.	Women.	Male children.	Female children.	Total.	
Chhāta ... ..	6	11,135	354	493	360	195	1,341	11.1
Muttra .. ..	8	14,727	376	380	239	184	1,179	8.0
Total ..	14	25,862	730	872	499	379	2,420	9.3

*Second class ; villages through which no canal passes and where there is no irrigation.*

Chhāta ... ..	5	10,442	145	112	59	45	361	3.4
Muttra .. ..	7	10,079	175	145	66	52	438	4.3
Total ...	12	20,521	320	257	125	97	799	3.9

The two classes of villages were separated by a very short distance, at the outside not more than five miles ; as far as could be judged, the conditions of both were precisely similar except as regards the canal. This, therefore, seems to point to the canal not as the cause of the disease, but as contributing a predisposing cause to its spread. In the Chhāta canal villages taken there is practically no irrigation from the canal, which however passes through them in the Muttra canal villages ; none except in Rāi and Radhakund. Surface irrigation cannot therefore have been the predisposing cause. The levels of the surrounding country show that the drainage has not been affected. There remains only the effect of the rise of the water level, which is however still about 30 feet from the surface. In none of the canal villages except Bisonti was the mortality less than in the non-canal villages, and in Bisonti the water level in the wells had for some cause not been affected. Not only, therefore, must a rise in the water level have its effect on the general health, but these facts seem to show, as far as such limited facts can show anything, that here we have the probable cause which affected the general health in 1878 and rendered the inhabitants of a certain tract more liable to the prevailing epidemic. The question is an important one and merits careful enquiry.

Irrigation from wells. Wells are of four classes—

- (1.) Masonry wells (pucka).
- (2.) Wells lined with a cylinder of wood (garwari).
- (3.) Wells lined with a basket work of twigs (ajhar).
- (4.) Wells with no lining at all (nanga).

Each of these classes of wells may be further subdivided into *kili*, or those worked with two pairs of bullocks, *per lāo*, and *nagaur*, those only worked with one. From the great depth to the water the former class is most common. The third subdivision of wells—namely, *dhenkli*, or wells worked by hand—are not used except in the Jumna valley.

The following statement shows the number of wells of each class :—

	<i>Pucka.</i>	<i>Garwarl.</i>	<i>Ajhar.</i>	<i>Nanga.</i>	<i>Total.</i>
Ois-Jumna ...	2,735	1,902	5,807	217	10,461
Trans-Jumna ...	2,264	2,322	19,623	414	20,689
Total ...	4,999	10,220	25,230	631	41,150

Partly from the greater number of *pucka* wells, and partly from the fewer number of wells altogether, the area irrigated per well is 9·4 acres on the right side of the river to 8·2 acres on the left. As a rule a masonry well commands a larger surface than any other kind, because it is driven down further until it meets the *sot* or spring and a stratum strong enough to bear the weight of the shaft; the supply of water thus obtained is naturally much more certain than the percolation supply at a higher level, and several pairs of bullocks can be worked at the same well. *Kucha* wells cannot be sunk so deeply, as every foot of depth adds to the danger of their falling in; in fact it is not unheard of for the men sinking the well to be killed, as sometimes when the understratum is of shifting sand, and the upper stratum of firm soil is pierced, the sand seems to come boiling up into the well and the sinkers are caught before they can escape. No general estimate can, however, be made of the area that can be commanded by a well, as it depends not only on the supply of water in the well, but also on the more or less porous nature of the field to be watered and of the land along which the conducting channels have to be taken. The appliances for supporting a *kucha* well vary according to the strata of soil passed through; where these strata are unstable resort is had to a cylinder of wood, the slabs being fastened together with strong wooden pegs; this wood is taken from the *faras* or other quick-growing trees near the well, and a well so made lasts sometimes 50 years. The cost is about Rs. 1-12 to Rs. 2 per foot of wood-work, and about Rs. 10 for incidental expenses. Where the substrata are more stable it is sufficient to use a lining of twigs made into rolls; the twigs used are usually those of the *faras* tree. These wells cost about Rs. 10 and last about a year. In the Jumna valley, where water is close to the surface, “*choa*” wells with *dhenklis* are used. It is unfortunate that the statistics of the number of wells in use at last settlement are too imperfect to admit of any detailed comparison.

The depth to the water varies considerably on the left bank of the river; it averages about 30 feet in *Māt* and *Noh Jhil*, and from 40 to 45 in *Mahāban* and *Sadabad*. On the right bank near the ravines and along the *Chhāta* hills in places it averages about 30 feet, but in the central plateau it is much greater; in the southern part it varies from 45 feet to 60 feet, but in the north of *Chhāta* and in *Kosi* it is seldom over 50 feet.

The character of the water is, however, of far more importance than its depth. Character of the water-supply. from the surface; it is a point, too, which can never be determined beforehand, as it depends entirely on the strata through which the water has to percolate, though as a rule the water in sandy tracts is sweet. In places a long stretch of country will give wells of a similar character, but it is more frequent to find wells of every kind in the same village. In the deep diggings along the *Agra* canal it was very curious to mark how often and how completely the strata of soil varied; in one place, for instance, there would be a vein of pure clay mixed with *kankar*, whilst close by the whole of the under soil would be impregnated

with salt. A well in the first would give sweet water, in the second brackish and perhaps injurious water; well sinking is therefore a lottery. No statistics can show the prevalence of bad and good water, because more wells are sunk where the chance of finding good water is greatest. Bad water is found in every tahsil, but as a rule it is less found in the trans-Jumna tahsils than in the Cis-Jumna. The proportion of existing wells recorded as absolutely sweet is 54 per cent. on the left bank and 51 per cent. on the right bank of the river. The weed *baisuri*, which rarely accompanies sweet water, is a better test in the parganas on the east where it is found. The area recorded as affected by it is Sahpau 11 per cent. of the area, Sadabad 17 per cent., Mahában 18 per cent., Mát 6 per cent. This test is however still very rough, as the weed does not grow everywhere where the water is bad and is not met with west of the river. The worst tract for water on the west of the river is in the north-west of Muttra and south-west of Ohháta; in one or two villages there the only drinking water that can be obtained is either from the village pond or from shallow wells for percolation from it sunk close by, and when this tank dries in the hot weather the villagers have to go to the next village with sweet water which is perhaps some distance off.

Local experience has divided the kinds of water into twelve classes; the distinctions are necessarily rough, but I give them as some guide to the qualities of the different waters :—

Kinds of water and their qualities.

1. *Mitha*.—Sweet water.
2. *Khari*.—Salt water. This water leaves a slight white deposit on the water channels and on the fields irrigated with it. With heavy rains it is excellent for wheat, barley, tobacco, cotton, *juár*; if they fail the produce is poor. For other crops it is of no use.
3. *Karua*.—Bitter water. After irrigation the field turns a rusty colour and the top surface gets light and feathery. Spring crops look yellow in the straw, and the straw is very small in quantity. With good rains it gives a fair crop of wheat, barley, cotton, and *juár*; but without rains there is nothing.
4. *Teliya*.—Oily water. This water has a nasty taste and strongly reflects the yellow of a brass vessel in which it may stand. Land irrigated from it gets a yellowish efflorescence and becomes so caked like clay that rain water remains on the surface for long without soaking in. It is good for wheat, barley, and *juár*.
5. *Marmara* or *sakhar*.—This water almost tastes sweet, but is slightly brackish. It leaves a few white spots on land irrigated from it.
6. *Mitha banga* (*matwara*).—A highly nutritious water; it tastes sweet, but is a trifle brackish. It is good for double cropping, but it is said the sugar cane grown with it gives but thin and poor *gur*. Sugarcane is, however, but rarely tried from it.
7. *Khari banga*.—This is also a very good water with a slightly salt taste. Land irrigated from it has a white efflorescence. With good rain it grows *dofasli*, and if *pareh* be made from a sweet well it is good for bringing on the crops. It is, however, useless for sugarcane, vegetables, or indigo.
8. *Mitha teliya*.—Oily, sweet. Like oily water it cakes the land, so that rain will not sink in. If allowed to stand in a vessel it has an oily scum. It leaves a slight efflorescence on land irrigated from it. It is no use for sugarcane, vegetables, or indigo.

9. *Khari teliya*.—Except that it has a salt taste and leaves an efflorescence like *reh*, this water differs but little from the last ; it is not, however, quite so good.
10. *Khari jarel*.—A salt horrible tasting water that covers ground irrigated from it with a feathery rusty white efflorescence. The best that can be said of the water is that with good rains it does not utterly ruin some crops.
11. *Karua teliya*.—A horrible bitter water that has an oily scum if allowed to stand for any time, else differing but little from the last.
12. *Marmara teliya, sakhar teliya*.—Oily brackish ; a water coming in quality between Nos. 8 and 9 ; produces very good crops if the rains have been good.

The worst kinds are of course uncommon, though in a village it is common enough to be told that the very birds if they drank the water would die (“*chiriya piwe to marjae*”). I have seen cases in which the use of a well for a single season some years ago burnt all the heart out of the land, turning it into *usar*; but this is also not common. Sometimes, however, the autumn crop is a failure, because in the previous spring harvest the water of a particular well was used. It will be noticed how many of the above kinds of water are only useful when the rains are good ; as a fact none of them except *mitha* and *mitha banga* are good for germination of the seed, but when once this has happened *khari, khari banga, marmara, mitha banga*, and even *marmara teliya*, are better for wheat and barley than purely sweet water. There is another thing against these wells : if the water be not absolutely sweet, in a year of drought its qualities become exaggerated, the salt well becomes saltier and the oily well oilier.

The number of masonry wells in this district (including Jalesar) for three periods are as follows:—

Decrease in the number of masonry wells during the settlement.

Number of masonry wells at last settlement	...	...	6,601
Ditto in 1848-49	...	...	5,609
Ditto at the present settlement	...	...	5,528

The introduction of the canal in Jalesar may have to some extent lowered the number of the present settlement ; but the fact remains that, in spite of the religious feeling of the Hindus in favour of the building of masonry wells, the number in use declined 1,000 in the first ten years of the settlement, and has since remained at least stationary, although during this time the irrigated area has increased enormously. The fall in the water level leaving many shafts dry and due to the drought of 1837-38 was the generally accepted explanation in 1849, but this will not account for the smaller number now that the water level has for some years regained its previous height. In reality, I imagine, masonry wells do not pay in places where any other kind of well is possible. A *garwari* well seldom costs over Rs. 50 and seldom lasts less than ten years, while not much of a masonry well can be built for Rs. 200. The interest on this Rs. 200 for the ten years at the ordinary rate would be Rs. 240 ; so that if instead of burying the principal in one well the capitalist laid it out at interest, he could keep in constant use three or four wells each as good as his one masonry one, and still have the principal to fall back on at the end. Further, the large class of small cultivators with no fixity of tenure cannot afford to make any permanent improvements in land from which they may be any day ejected ; and living, too, from hand to mouth, it is far easier for them to borrow a small sum which can be repaid from the proceeds of one harvest ; and thus even though they only last one year, *ajhar* wells, costing Rs. 10 to make, are generally dug in preference to *garwari* ones, which, lasting ten times as long, cost only five times as much.

The following statement gives the average rainfall over the six observing stations of the district for the last fifteen years. In this period there was one year of excessive rainfall (1873-74) and two years of failure (1868-69) and 1877-78 :—

Year.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	Total.
1863-64 ...	4.05	15.42	7.53	0.13	0.22	...	...	...	0.22	0.08	0.16	0.7	28.51
1864-65 ...	0.1	5.23	7.1	4.91	...	...	...	0.13	0.23	0.51	0.4	0.87	19.48
1865-66 ...	0.5	1.42	9.07	3.81	...	...	...	1.01	...	...	0.35	0.5	16.66
1866-67 ...	0.9	8.18	10.92	6.95	...	...	...	0.1	...	0.53	0.1	0.22	27.9
1867-68 ...	0.9	12.43	11.63	0.97	0.25	...	0.95	0.61	0.56	0.35	0.08	0.11	28.84
1868-69 ...	1.48	8.88	0.35	1.5	...	...	...	1.15	0.2	1.8	...	...	15.31
1869-70 ...	0.32	7.5	5.62	4.83	1.68	...	...	0.47	...	1.57	0.42	...	22.43
1870-71 ...	5.82	8.75	4.85	1.7	...	...	0.65	0.73	0.82	0.07	0.17	1.97	25.53
1871-72 ...	6.2	9.68	6.08	2.47	...	...	0.95	0.73	0.35	0.1	0.02	0.57	27.15
1872-73 ...	2.87	10.27	9.9	3.12	...	...	0.32	0.18	...	0.35	...	1.32	28.33
1873-74 ...	0.73	20.13	11.95	7.89	0.11	...	0.02	...	...	0.23	0.05	0.61	43.02
1874-75 ...	4.87	10.8	10.17	2.71	...	...	...	0.37	1.3	...	...	0.37	30.59
1875-76 ...	0.27	7.01	6.55	13.03	0.9	...	0.53	...	...	0.41	0.05	0.35	29.1
1876-77 ...	0.38	8.93	2.88	6.13	1.05	...	...	0.28	0.89	0.25	0.5	0.31	21.55
1877-78 ...	0.27	2.45	0.8	0.08	4.55	...	1.91	0.45	0.32	0.23	0.72	1.18	13.66
Average ...	2.02	9.16	7.02	4.01	0.59	...	0.36	0.4	0.33	0.44	0.2	0.6	25.18

November is thus the only absolutely dry month. Of the rain nearly nine-tenths fall during the months of June, July, August, and September; about one-twentieth falls in the hot weather months of March, April, and May, and is wasted; the remainder falls in October, December, January, and February. On the amount of the last three of these months, or the Mahawát, much of the value of the rabi or spring crop depends. Taking the average of the fifteen years, the rainfall of the Cis-Jumna tahsils is 26.1, and of the Trans-Jumna 24.1; the difference does not run through them all, but is chiefly caused by the excess in Muttra and the deficiency in Mát, resulting most probably from purely local causes. The distribution of the rainfall is as important as its quantity. The spring harvest of 1877-78 would, but for the cloudy weather of February, have been at least up to the average; it was the result of the 4.55 inches that fell in October and the 2.36 inches of December and January; while in Sadabad, in 1876-77, two average harvests were produced, and the total rainfall of the year there was only 16.9 inches. In March there are frequently hailstorms, which do great damage to the ripening crops; the great one of 1841 in Kosi is still remembered.

The district is fully opened up. From Muttra metalled roads run to Agra, Dehli, Aligarh, Háthras, Jalesar *viâ* Sadabad, Bhartpur, Brindaban, and Díg *viâ* Gobardhan. There is another metalled road from Agra to Aligarh which passes through Sadabad, and one from Chhátá on the Dehli road to Shergarh. It is extremely unfortunate that this last road as well as the Jalesar road as far as Sadabad should have been given up, and that the road to Aligarh should have been rendered almost useless by the removal of the metal for some distance beyond the border of this district. Mát is the only tahsil which has no metalled road. The unmetalled roads are numerous; the chief of them are from Muttra to Sonkh, Jait to Sahar, Chhátá *viâ* Sahar to Gobardhan, Shergarh *viâ* Noh Jhíl, to Bajna, Noh Jhíl *viâ* Surír to Mát, Mat to Ráya, Ráya to Baldeo. In addition to these the village roads are excellent, except where they pass through sandhills or where they have been cut up by the canal and its distributaries. There is a pontoon bridge over the Jumna at Muttra on the road to the railway, and to Aligarh and Háthras, which is kept open all the year round; there is also a bridge of boats at Gokul on the road to Mahá-ban and Sadabad, and another at Brindaban, giving access to Mát; but these are only kept open for eight months of the year; during the rains they are replaced by ferries. Ferries are located at every few miles along the river bank.

The district is also rich in railways. The East Indian Railway passes through the east of Sahpau, and there is a railway station at Mánikpur

(b) Railways.

known as Jalesar road on the metalled road from Sadabad to Jalesar. A light railway which cost 10½ lakhs, of which 3½ lakhs were raised by local subscriptions on an interest guaranteed by Government, runs from the opposite bank of the river at Muttra to the East Indian Railway at Mendu or Háthras road. On this line there is little export from Muttra; it is mostly used for the import of grain and sugar. Another, a State railway, is under construction which will start from the station of this light railway, cross the Jumna by a bridge, and join the Rajputana State Railway at Achhnera.

The water communication is by the river Jumna and by the Agra canal. The

(c) Water communication.

traffic on the former, which originally consisted of salt and cleaned cotton from the north, and sugar, rice, tobacco, spices, &c., from the east, has been greatly interfered with by the Muttra and Háthras railway. In 1878 about 130 boatloads of wood and *uplas* for fuel, cane for eating, melons, &c., were carried from Muttra to Brindaban or the reverse, while between 30 and 40 boatloads of wheat and other food grains were brought to Muttra from the north; the present traffic is therefore very small. The Agra canal is open for boat traffic down the whole length of the main line in the Cis-Jumna tahsils, while a special navigation channel of about eight miles in length joins the main canal at Aring with Muttra, though not with the Jumna. Great sums have been spent on rendering the canal navigable, chiefly in building high bridges for the boats to pass under, in making locks at the falls, and in cutting the special navigation channel to Muttra; but it seems more than doubtful if the receipts will ever cover the interest on the outlay, and it seems almost certain that the special cut to Muttra which has only been recently opened will be very little used. What traffic there is is through traffic from Dehli to Agra or places beyond, for at both ends the canal opens for navigation purposes into the Jumna. In 1877-78 Kosi exported some grain and imported some stone. Muttra imported a little grain, bhang, and sugar, while Aring imported a little grain for the Native States. The traffic in grain is not a constant one, and depends entirely on the differences of prices at the different marts. The traffic in stone brought from Agra is, however, very steady and likely to increase. There are a few Government boats on the canal which carry goods at fixed rates. Private boat-owners pay a rent of Rs. 20 the quarter to Government, and they carry goods at Rs. 6 the 100 maunds from Agra to Dehli. During 1877-78 there were 20 Government boats and 72 private boats plying on the canal.\*

There being no manufactures, there is no trade in the district beyond that in agricultural produce, which is exported or imported according to the general state of the market.

Trade.

The civil station and cantonments of Muttra lie along the right bank of the Jumna. The cantonments we took over from the Mahrattas in 1803, and for some years Muttra was a large frontier station until it was partly abandoned for Karnal. It remained a purely military station until 1832, when the headquarters of the civil officials were moved here from Sadabad. Until the mutiny the garrison consisted of some native artillery and infantry; since the mutiny the British cavalry regiment attached to the Agra Brigade has been cantoned here. The station is small and compact and has the reputation of being healthy, though more than usually hot. It lies about two miles south-east of the city of Muttra, with which it is connected both by the Dehli road and the large and straggling sudder bazar. At the request of the Military authorities a record of the rights of existing owners of land in the Muttra cantonment has been made and a decision has been come to on the disputed questions of ownership. The record as prepared has received the sanction of the Government of India in the Military Department.

\* For these facts I am indebted to the courtesy of the officers of the Canal Department.

The district contains two towns of over 20,000 inhabitants and one of over 10,000, all on the right side of the river. The difference between the Chief towns. two sides of the river has been already noted. The following are the towns and villages with over 2,000 people :—

## CIS-JUMNA.

<i>Muttra Tahsil.</i>				<i>Chhāta Tahsil—(concluded).</i>			
Muttra ...	...	...	61,194	Barana ...	...	...	3,066
Bindrabān ...	...	...	20,626	Chāumohan ...	...	...	3,011
Gobardhan ...	...	...	5,363	Kamai ...	...	...	2,773
Sonkh ...	...	...	4,829	Mahrana ...	...	...	2,579
Aring ...	...	...	4,511	Bharna (little) ...	...	...	2,263
Ral ...	...	...	3,515	Sehi ...	...	...	2,167
Palson ...	...	...	3,036	Hathiya ...	...	...	2,136
Mungera ...	...	...	2,537	<i>Kosi Tahsil.</i>			
Radhakund ...	...	...	2,441	Kosi ...	...	...	12,862
Aurangabad ...	...	...	2,439	Kamar ...	...	...	4,363
Uspahar ...	...	...	2,308	Phalen ...	...	...	4,213
Bachhgaon ...	...	...	2,188	Bathen (big) ...	...	...	3,043
Jait ...	...	...	2,123	Dahgaon ...	...	...	2,883
Bati ...	...	...	2,003	Shahpur ...	...	...	2,820
<i>Chhāta Tahsil.</i>				Paigaon ...	...	...	2,637
Chhāta ...	...	...	7,096	Gindoh ...	...	...	2,646
Shergarh ...	...	...	5,129	Hatana ...	...	...	2,510
Nanogaon ...	...	...	4,733	Jaobat ...	...	...	2,057
Sahar ...	...	...	4,321	Kotban ...	...	...	2,013
Khaira ...	...	...	3,311				

## TRANS-JUMNA.

<i>Sādabad Tahsil.</i>				<i>Mahāban Tahsil—(concluded).</i>			
Sādabad ...	...	...	4,019	Raya ...	...	...	2,634
Sāhpau ...	...	...	4,026	Karab ...	...	...	2,313
Kuraanda ...	...	...	3,974	Barauli ...	...	...	2,071
Marhaka ...	...	...	2,136	Lohban ...	...	...	2,051
<i>Mahāban Tahsil.</i>				<i>Māt Tahsil.</i>			
Mahāban ...	...	...	6,567	Māt ...	...	...	4,236
Gokul ...	...	...	4,477	Noh Jhīl ...	...	...	2,760
Baldeo ...	...	...	3,333	Surir ...	...	...	2,591
Werni ...	...	...	2,786	Karahari ...	...	...	2,465

The population of outlying hamlets is not included in this list.

There are three municipalities—Muttra with an income of Rs. 52,000, Bindrabān with Rs. 21,200, and Kosi with Rs. 12,100. In all the income is chiefly from an octroi on food grain consumed. The Chaukidari Act is in force in the 13 towns and villages of Kamar, Chhāta, Shergarh, Sahar, Gobardhan, Baldeo, Sādabad, and Sāhpau. The income varies from Rs. 510 in Sāhpau to Rs. 2,200 in Gobardhan. This income is expended roughly as follows:—two-thirds on police, one-eighth each on conservancy and local improvements, and one-twelfth on the cost of collection.

The following statements show the area occupied by the chief crops at the times at which the rough records were prepared in the different parganas.—

<i>Kharif or autumn crop.</i>				<i>Uplands.</i>		<i>Jumna valley.</i>	
Name of crop.				Area.	Proportion of area to total crop area.	Area.	Proportion of area to total crop area.
				Acres.		Acres.	
Sugarcane ...	...	...	...	1,066	0·2	455	1·4
Cotton ...	...	...	...	107,724	15·2	1,922	6·2
Indian-corn ...	...	...	...	6,191	0·9	208	0·7
Juār ...	...	...	...	218,408	30·9	3,016	9·7
Bājra ...	...	...	...	40,577	5·8	1,237	4·1
Rice ...	...	...	...	55	...	...	...
Indigo ...	...	...	...	3,032	0·4	3	...
Hemp ...	...	...	...	713	0·1	10	...
Khurti ...	...	...	...	10,246	1·5	582	1·9
Other crops ...	...	...	...	18,502	2·6	753	2·4
Total ...	...	...	...	406,714	57·6	8,236	26·4

<i>Rabi or spring crop.</i>				<i>Uplands.</i>		<i>Jumna valley.</i>	
Name of crop.				Area.	Proportion of area to total crop area.	Area.	Proportion of area to total crop area.
				Acres.		Acres.	
Wheat ...	...	...	...	55,132	9.2	8,166	26.2
Barley ...	...	...	...	87,054	5.2	3,825	12.8
Bejhar or barley and gram ...	...	...	...	104,818	11.6	6,529	21.9
Gram ...	...	...	...	71,102	10.1	846	2.7
Golai or wheat and barley ...	...	...	...	11,704	1.7	1,964	6.3
Other crops ...	...	...	...	4,695	0.7	299	0.9
Total ...	...	...	...	294,560	41.7	21,629	69.8

<i>Vegetables.</i>				<i>Uplands.</i>		<i>Jumna valley.</i>	
Name of crop.				Area.	Proportion of area to total crop area.	Area.	Proportion of area to total crop area.
				Acres.		Acres.	
Tobacco ...	...	...	...	1,071	0.1	64	0.3
Potatoes ...	...	...	...	31	...	...	...
Opium ...	...	...	...	9	...	...	...
Melons ...	...	...	...	...	...	914	3.9
Other crops ...	...	...	...	3,989	0.6	312	1.0
Total ...	...	...	...	5,100	0.7	1,290	4.2

The area under arhar, a crop never grown by itself, is in the uplands 134,782 acres, and in the khadar 756 acres. The area under double crops is in the uplands 29,060 acres, and in the Jumna valley 1,284 acres. All of this area appears once under the kharif. Of the upland double crops 1,441 acres, and of the khadar 160 acres, appear again under vegetables, and the rest comes under rabi.\* The difference of the crop area on both sides of the Jumna has already been noticed; the following gives the principal crops more in detail:—

	<i>Jadr.</i>	<i>Cotton.</i>	<i>Bejhar.</i>	<i>Gram.</i>	<i>Wheat.</i>	<i>Barley.</i>
Cis-Jumna ...	36	14	12	17	5	4
Trans-Jumna ...	23	17	18	2	15	7

There are no detailed crop statistics for the last settlement, but I have been able to recover the proportional area sown to certain crops in the Cis-Jumna tahsils in 1840. Then 63 per cent. of the area was under kharif and 37 per cent. under rabi; 17 per cent. grew cotton, while wheat covered 4 per cent. and barley 6 per cent. The most marked difference is the slight increase of rabi cultivation and the fall in the area covered by cotton and barley. Cotton is grown proportionally much less now than it was then in the Kosi tahsil (25 per cent. then to 17 per cent. now) and less in all the other tahsils. The difference is not covered by the rise in the cultivated area, although this must have had its effect, as the newly-broken up land is on the average not as good as the area of old cultivation; but the chief cause has been the decrease in home-made cloth and the increased consumption of English cloth. The decrease in barley is probably nominal, and caused by the inclusion of much bejhar in barley at the last settlement.

\* To compare this statement with the others, the following corrections must be made:—

	Acres.
Total crop area ...	737,529
Add fallow ...	3,976
Subtract do-fash ...	74,507
Cultivated mufli ...	61,870
Total ...	649,392



The following table shows the proportional distribution of the chief crops in the different parganas :—

				Sahpau.	Sadabad.	Mahában.	Muttra.	Chháta.	Kosl.	Mat.	Noh Jnd.
Cotton	...	...	...	26	25	14	10	16	17	12	10
Juár	...	...	...	22	22	26	41	36	28	25	20
Bájra	...	...	...	6	4	7	6	7	5	3	4
Wheat	...	...	...	19	17	12	5	4	7	17	15
Barley	...	...	...	7	8	8	5	3	3	6	6
Bejhar	...	...	...	11	11	19	6	12	22	22	26
Gram	...	...	...	2	2	2	20	17	11	2	3

These statistics are remarkable for—

- |   |                                       |
|---|---------------------------------------|
| (1.) The preponderance of kharif over rabi.                 | (5.) The absence of rice.             |
| (2.) The prevalence of juár and the small area under bájra. | (6.) The scarcity of cane.            |
| (3.) The large area under cotton.                           | (7.) The large area of gram           |
| (4.) The small area under wheat.                            | (8.) The small area under vegetables. |

The first, fourth, and seventh show that the water is far from the surface and irrigation difficult, the second and third that the natural soil is good, the fifth that there are no jhils or lakes and that the climate is dry; the sixth shows that the water is rarely perfectly sweet, and the eighth that Kachhis, Kunjras, and other vegetable gardeners form but a small part of the population. Comparing the two opposite sides of the river, we find that khurti, which is grown for fodder, is commoner in the Trans than in the Cis-Jumna tahsils; that in other respects the peculiarities of the whole district are intensified on the right bank of the river. The kharif area rises from 52 per cent. in the Trans-Jumna to 66 per cent. in the Cis-Jumna, and garden produce falls from over 1 per cent. to only 3 per cent. of the crop area and the unirrigated crops far outnumber the irrigated. Out of the chief crops which cover 88 per cent. of the area only 9 per cent. are habitually irrigated and 12 per cent. occasionally to the west, while on the east bank of the river, of the same crops covering 82 per cent. of the crop area, 22 per cent. are habitually and 18 per cent. occasionally irrigated. Juár and gram required good soil, but no care and trouble, and their prevalence is a ~~case~~ proof of the carelessness of the Cis-Jumna cultivators. The dofalsi area too, which is 5 per cent. in the Trans-Jumna tract, is only a little over 3 per cent. in the Cis-Jumna, a sign of want of close cultivation. Why, however, arhar should sink from the 27 per cent. of the Trans-Jumna to the 11 per cent. of the Cis-Jumna I cannot say; the difference probably arises more from differing customs of the people than from any other cause.

The crop statistics bring us naturally to the character of the cultivation; over the whole of the eastern division this is much the same—a high mean is attained all over the village, with nothing of startling excellence in any part. This arises both from the prevalence of Játs and from the small proprietary shares into which much of the land is broken up. Kachhis and Malis are only found in a few places their place is generally taken by the Játs, who living and feeding in their fields, spend their whole care on the ordinary crops which only they care to grow; the home lands therefore differ from the outlying not in the luxuriance of garden cultivation, but merely because, being manured, they will bear double crops. The small proprietary tenures act in the same way, for the owner, a careful cultivator at all times, has more incentive to bestow all his care on the fields which are all his own; while without hard labour the mere cultivator could not meet the high rates of rent he has to pay. In Kosi too, where there are Játs, the cultivation is good, though not so close and careful as across the river; irrigation is rarer and more difficult, but the ground is ploughed and worked with care and the crops fairly tended. But coming to Muttra and Chháta the case is very different; but even here, where there are Játs, Malkanas, and other industrious classes as in Sonkh, Phondar, and Mungera of the former, and Nandgaon, Naugama, and Chháta

of the latter, the cultivation can vie with Kosi; but over all the rest of the area covered with tribes of Ahwasia, Gujar, and Gaurua Thákurs the appearance of the country is very different, lazy and careless: they just scrape the ground, and throwing in the seeds of juár and gram, leave the germinating of it to Providence and the rain. I have elsewhere remarked on the effect the Agra canal has already worked in these parganas and its probable effect in the future. As late as 1828 the custom of letting land lie fallow to recuperate is spoken of as common in the Cis-Jumna tahsils.

The police of the district subordinate to the District Superintendent of Police consists of

1. The regular police.
2. Police paid for municipalities.
3. Police paid by small towns.
4. Village and road watchmen or chaukidars.

The regular police consists of—

				Numbers.	Yearly pay. Ra.
1. Inspectors	...	...	...	5	7,500
2. Sub-inspectors	...	...	...	12	5,760
3. Head constables	...	...	...	72	11,940
4. Mounted constables	...	...	...	14	2,678
5. Foot constables	...	...	...	325	32,115
Total				438	51,993

They are distributed over the following stations:—

1st class stations.	2nd class stations.	Outposts.
1. Sádabad.	1. Sáhpan.	1. Gíglá.
2. Baldeo.	2. Mahában.	2. Sonal.
3. Raya.	3. Mát.	3. Bajna.
4. Noh Jhil,	4. Surír.	4. Mohanpur.
5. Kosi.	5. Majhol.	5. Jaisinghpura.
6. Chháta.	6. Barsana.	6. Bhartpur road.
7. Aring.	7. Sahar.	7. Hansgañj.
8. Muttra.	8. Shergarh.	
9. Bindrañan,	9. Jait.	
	10. Gobardhan.	
	11. Sonkh.	
	12. Kasulpur.	
	13. Sudder Bazar.	

The police paid for by the three municipalities and their allocation are as follows:—

	Muttra.	Bindrañan.	Kosi.	Yearly pay. Ra.
Sub-inspectors	...	3	...	1,200
Head constables	...	12	3	1,995
Constables	...	132	6	2,328
Jamadars	...	...	3	450
Chaukidars	...	...	48	3,690
Total	...	146	59	9657

In the 13 small towns and villages in which the Chaukidari Act is in force the following establishment is entertained:—

			Number.	Yearly cost. Ra.
Jamadars	...	...	7	495
Chaukidars	...	...	155	6,972

Besides these there are 1,446 village chaukidars maintained at a cost of Rs. 52,572 yearly. The total cost of the police yearly is therefore, excluding the pay of the District Superintendent of Police which varies as his grade in the service, Rs. 1,21,692.

## CHAPTER II.

### SOCIAL CONDITION.

Population statistics—Distribution of population on the area—Present proprietary statistics by caste—Cultivating statistics by caste—Effect of caste, &c., on rent—Colonization by castes and tribes—Brahmans—Játs—Thákurs—Muhammadans—Baniyas—Dhusars—Kayaths—Religious classes—Géjars—Ahírs—Chamars—Kolís—Other castes—Tenures: (a) Trans-Jumna, (b) Cis-Jumna—Origin of these tenures—Future of the village communities—Changes in size of cultivating holdings and in status of cultivators since the revision of records—Plough statistics—Other cattle, horses, sheep, &c.—Condition of the people—Effect of fixity of tenure on condition of cultivators—Education.

At the census of 1872 the population of the district was 729,920. Of these 671,666 were Hindus and 57,914 Muhammadans, the remaining 340 being Christians and others. The return of Christians does not include the military population of the cantonment, which consists of one English cavalry regiment and a small staff. The Muhammadans are chiefly town dwellers, one-third of them being found in the six chief places which only contain one-eighth of the Hindus. Of the Hindus 56,178 are recorded as owners of land and 298,936 as cultivators, while for the Muhammadans the numbers are 1,587 and 13,257 respectively. The number of cultivators is below the real amount however, as many of those recorded as daily labourers cultivate small patches of land of their own. But this return still shows another considerable difference between the religions, for whereas according to it, of the Hindus, 8·3 per cent. own land and 44·5 cultivate it, among the Muhammadans only 2·7 per cent. are landlords and 22·9 per cent. cultivators. The number of houses is 108,131, of which about one-fifth are built with skilled labour; the number of inhabitants per house is thus 6·8. The number of males over 15 years of age engaged in agriculture is given as 128,738, which, as the cultivated area is returned as 697,049, acres, gives 5·4 acres to each male agriculturist. Of the Hindus 131,636 are returned as Brahmans, 56,313 as Rájputs, and 44,514 as Baniyas. In fact the peculiarity of the population is its homogeneity, about three-fourths of it belonging to the four great classes of Chamars, Játs, Brahmans, and Thákurs. None of the other castes are numerically important.

I have already remarked on the difference of the distribution of the population on the area and into villages and inhabited sites on the two sides of the river; how in the east the villages are small and the rural population dense, while on the west the people are grouped in towns and large villages and the rural population sparse. I have also noted the cause of this difference and its effect on the country in a settlement point of view both in its influence on the area of home or manured lands and also on the utilization of time and labour wasted in the long journeys to outlying fields. I now append a statement showing these facts in detail :—

Pargana.	Number of Villages.	Number of inhabited sites.	Area per village in acres.	Area per site in acres.	Population per site.	Population per square mile of area.	Population per square mile of cultivation.
Trans-Jumna.	Sáhpna ...	26	68	690	337	338	647
	Sadabad ...	93	329	1,010	285	284	572
	Mahában ...	119	515	1,278	295	284	617
	Mát ...	57	174	1,189	389	391	494
	Noh Jhil ...	100	129	742	575	414	461
Cis-Jumna.	Muttra ...	144	265	1,288	700	779	704
	Chháta ...	111	128	1,456	1,262	853	433
	Kosi ...	62	68	1,580	1,440	1,148	510

Omitting, however, the population of the chief towns, the distribution of the rural population on the square mile of cultivation is for each pargana —

Trans-Jumna	...	Sáhpau	...	599
		Sádabad	...	649
		Mahában	...	650
		Mát	...	551
		Noh Jhíl	..	587
Cis-Jumna	...	Muttra	...	495
		Chhátá	...	484
		Kosi	...	502

Kosi has therefore the largest villages and Chhátá the sparsest rural population.

The following statement shows the present proprietary statistics by caste of all the area, excluding muáfi and land owned by Government :—

*Trans-Jumna.*

Caste.	Resident.			Non-resident.			Total.		
	Number of owners.	Area owned in acres.	Average holding in acres.	Number of owners.	Area owned in acres.	Average holding in acres.	Number of owners.	Area owned in acres.	Average holding in acres.
Ját	10,042	102,037	10.2	1,776	30,603	17.2	11,818	132,640	11.2
Brahman	3,479	43,447	12.5	1,384	52,582	40.9	5,763	96,029	16.7
Baniya	375	9,627	25.7	745	43,547	58.4	1,120	53,174	47.4
Thákur	2,276	30,552	13.4	265	8,845	33.4	2,541	39,397	15.5
Muhammádan	343	4,900	14.3	234	19,918	85.1	577	24,818	43.0
Other castes	331	7,603	22.9	410	35,673	87.0	741	43,276	58.4
Total	16,846	198,166	11.8	4,714	191,163	40.5	21,560	389,329*	18.1

\* Total ... 389,329

Muáfi ... 19,089

Land taken by Government ... 910

409,328

*Cis-Jumna.*

Caste.	Resident.			Non-resident.			Total.		
	Number of owners.	Area owned in acres.	Average holding in acres.	Number of holders.	Area owned in acres.	Average holding in acres.	Number of holders.	Area owned in acres.	Average holding in acres.
Ját	8,612	82,642	9.6	2,007	22,671	11.3	10,619	105,313	9.9
Thakur	4,337	54,494	12.5	299	23,497	78.5	4,636	77,991	16.8
Brahman	5,650	50,060	8.9	1,140	25,086	22.0	6,790	75,146	11.1
Kayath	24	74	3.1	128	24,693	192.9	152	24,767	162.9
Baniya	360	2,508	7.0	320	27,710	86.6	680	30,218	44.4
Muhammádan	910	12,492	13.7	245	3,828	15.6	1,155	16,320	14.1
Gójar	545	12,057	22.1	42	433	10.3	587	12,490	21.3
Dhusar	44	1,879	42.7	116	11,208	96.6	160	13,087	81.8
Other castes	636	5,080	8.0	177	24,250	137.0	813	29,330	36.1
Total	31,110	321,286	10.5	4,474	163,376	36.5	35,584	484,662*	15.0

\* Total ... 484,662

Muáfi ... 58,100

Land taken by Government ... 2,344

445,106

Abstracting this, we find that the ownership of the land is divided as follows now:—

*Trans-Jumna.*

Caste.	Proportion owned by resident zamindars.	Proportion owned by non-resident zamindars.	Proportion owned by both classes.
Ját ... ..	26.2	7.8	34.0
Brahman ... ..	11.2	13.5	24.7
Baniya ... ..	2.5	11.2	13.7
Thákur ... ..	7.8	2.3	10.1
Muhammadan ... ..	1.3	5.1	6.4
Other castes ... ..	1.9	9.2	11.1
Total ...	50.9	49.1	100.0

*Cis-Jumna.*

Caste.	Proportion owned by resident zamindars.	Proportion owned by non-resident zamindars.	Proportion owned by both classes.
Ját ... ..	21.5	5.9	27.4
Thákur ... ..	14.2	6.2	20.4
Brahman ... ..	18.0	6.5	19.5
Baniya ... ..	0.6	7.2	7.8
Kayath ... ..	...	6.4	6.4
Muhammadan ... ..	3.3	1.0	4.3
Dhusar ... ..	0.5	2.9	3.4
Gújar ... ..	3.1	0.1	3.2
Other castes ... ..	1.3	6.3	7.6
Total ...	57.5	42.5	100.0

In the Trans-Jumna tahsils, therefore, Ját and Thakur owners mostly reside on their property, whilst in the Cis-Jumna ones Brahmans, Muhammadans, and Gújars must be added to them. Baniyas and Muhammadans in the former, and Baniyas, Kayaths, and Dhusars in the latter, are the great absentee landlords. Comparing these statistics with those of colonization given later on, we find that in the Trans-Jumna parganas roughly the Játs have lost half their property and the Thákurs one-fifth; the Baniyas, who when we conquered the country only owned two villages, now have more than one-seventh of the area; while the property of Brahmans has doubled, and that of Muhammadans more than tripled, during the same time. In the Cis-Jumna parganas, on the other hand, the Játs have, after allowing for the acquisitions of the Háthras Raja from the Gújars, lost only about one-seventh of their land, while the Thákurs have (after excluding the newly acquired property of the Awa Rája) parted with over half of theirs. The Gújars have however suffered most, as only about one-third of their ancestral villages remain with them. The Brahmans have gained nearly 50 per cent. on their old possessions, while the Muhammadans have receded; more in fact than the statistics show, since the Malkanas, the only Muhammadan colonists, have lost a very large share of their property. The Baniyas, Kayaths, Dhusars, and other castes, who have only acquired estates under our rule, now own nearly one-fifth of the area. On the west of the Jumna the original colonists have thus lost rather more of their property than on the east; but between the two tracts there is this difference, that whereas on the west the great losses were early in our rule and mostly in the sale of entire villages before the owners had realized what was meant by conferring on them the gift of the actual ownership in the land, the losses on the east have been spread more evenly over the whole period. It therefore follows that at the present time the village communities on the west have a stronger grip on the land than they have on the east.

The statement now given shows the cultivated area of that portion of the district for which proprietary statistics have been already given, broken up into the four classes of cultivation—sir, ex-proprietary tenants, right of occupancy tenants and tenants-at-will, and excluding rent-free land according to castes, it further shows the rent payable on each subdivision:—

*Trans-Jumna.*

Caste.	Sft.			E <sup>s</sup> proprietary tenants.					Tenants with a right of occupancy.					Tenants without right of occupancy.				
	Number of holders.	Area held in acres.	Average holding in acres.	Number of holders.	Area held in acres.	Rental.	Average holding in acres.	Rent per acre.	Number of holders.	Area held in acres.	Rental.	Average holding in acres.	Rent per acre.	Number of holders.	Area held in acres.	Rental.	Average holding in acres.	Rent per acre.
Jat	8,088	61,436	7.6	18	349	Rs. 1,540	19.1	6.19	5,320	43,321	Rs. 164,453	7.7	4.25	6,354	51,514	Rs. 265,683	8.2	5.16
Brahman	2,554	17,749	6.9	1	9	35	9.9	4.33	4,085	25,766	104,865	6.3	4.15	3,633	23,743	145,738	7.9	5.18
Thakur	1,198	9,977	8.3	4	10	34	2.5	3.8	906	6,983	21,886	7.7	4.13	1,786	15,683	76,949	8.8	4.91
Muhammadian	189	1,047	5.5	1	6	18	6.0	3.00	207	1,439	6,377	6.8	4.43	452	2,682	19,609	5.9	4.7
Chamar	11	91	8.3	..	..	..	..	..	934	6,952	31,059	7.4	4.47	5,003	14,278	71,951	7.1	5.94
Baniya	302	1,390	6.8	..	..	..	..	..	331	2,270	8,348	6.9	3.68	352	2,077	10,296	6.6	4.99
Garariya	..	..	..	7	..	..	..	..	242	1,642	8,067	7.6	4.36	314	2,781	13,335	8.8	4.97
Barhai	3	35	12.5	..	..	..	..	..	198	923	3,995	4.7	4.33	267	1,450	8,951	5.4	5.55
Kachhi	1	6	6.0	..	..	..	..	..	164	886	5,236	5.1	6.38	159	1,021	6,731	5.1	6.58
Mai	1	2	2.0	..	..	..	..	..	111	391	1,679	3.5	4.29	174	617	3,478	3.5	5.43
Malih	..	..	..	..	..	..	..	..	126	736	2,322	5.8	3.06	312	1,572	5,934	5.0	3.77
Other casted	255	1,377	5.4	..	..	..	..	..	871	6,248	22,394	7.2	3.58	1,357	7,864	39,124	5.9	4.95
Total	13,496	93,360	7.5	19	274	1,854	14.4	6.96	18,795	97,677	499,483	7.1	4.19	17,033	130,802	632,379	7.6	5.09

*Cis-Jumna Tahsils.*

Caste.	Sir.			Ex-proprietary tenants.					Tenants with a right of occupancy				Tenants without a right of occupancy.					
	Number of holders.	Area held in acres.	Average holding.	Number of holders.	Area held in acres.	Rental.	Average holding in acres.	Rental per acre.	Number of holders.	Area held in acres.	Rental.	Average holding in acres.	Rental per acre.	Number of holders.	Area held in acres.	Rental.	Average holding in acres.	Rental per acre.
Jât	6,666	56,069	8.4	111	729	Rs. 2,221	6.6	Rs. 3.05	3,102	17,995	Rs. 56,285	5.8	3.13	2,966	18,630	Rs. 50,358	6.2	2.72
Brahman	4,207	29,074	6.9	49	138	233	2.8	1.69	3,912	19,765	54,232	5.2	2.74	2,656	13,859	33,580	5.0	2.51
Thâkur	3,350	28,556	8.5	32	174	414	5.4	2.38	4,568	28,848	78,962	6.3	2.74	2,363	18,495	40,990	7.9	2.17
Muhammâdan	580	4,666	8.0	6	32	97	5.3	3.03	1,176	5,889	16,924	5.0	2.87	1,089	4,964	15,003	4.6	3.02
Chamar	75	456	6.1	...	...	...	...	...	2,733	18,396	40,780	4.9	3.01	2,915	13,833	40,144	4.9	2.9
Baniya	197	907	4.6	...	...	...	...	...	212	991	2,237	4.7	2.26	284	1,077	2,901	3.8	2.69
Gôjâr	441	5,377	12.2	7	66	210	9.4	3.18	747	4,703	15,335	6.3	3.26	681	4,501	12,080	6.6	2.68
Garariya	14	40	2.9	...	...	...	...	...	432	1,886	5,671	4.4	3.0	303	1,440	4,056	4.7	2.82
Barhal	39	188	4.8	...	...	...	...	...	274	934	2,587	3.4	2.77	287	1,001	2,964	3.5	2.96
Kachhi	14	18	1.3	...	...	...	...	...	336	1,607	5,954	4.8	3.71	374	1,595	6,099	4.3	3.82
Nai	12	27	2.2	...	...	...	...	...	191	439	1,122	2.3	2.55	205	497	1,343	3.4	2.7
Mallah	5	37	7.4	...	...	...	...	...	100	473	1,609	4.7	3.4	441	1,257	4,340	2.9	3.45
Other castes	377	1,837	6.6	5	32	161	6.4	4.72	1,181	5,257	12,816	4.5	2.43	1,604	5,606	14,741	3.5	2.63
Total	15,877	127,252	8.0	210	1,171	3,326	5.6	2.84	18,964	102,185	294,514	5.4	2.88	16,168	86,535	2,28,599	6.3	2.64

Comparing these statistics with those already given, we find that the three great castes of Jāts, Thākurs, and Brahmans cultivate 81 per cent. and own 67 per cent. of the area on the left bank, while they own 72 per cent., but only cultivate 73 per cent. on the right. Jāts and Thākurs are cultivating proprietors in about the same proportion that they are proprietors, while Brahmans, especially to the east of the Jumna, cultivate a comparatively small proportion of the area they own, the greater proportion of their farming being as mere cultivators. Of the other classes who are important as landowners, the Gújars only cultivate much. Kaynths, Muhammadans, Baniyas, and Dhuzars have little to do directly with land, preferring to collect their rent from the actual tillers. After the three great proprietary and cultivating classes come the Chamárs, who own but little of the area, but cultivate some 6 or 7 per cent. of it. No other caste individually cultivates much. On the two sides of the river the average sár area held by each owner is much the same, but to the right of the river the cultivating holdings run much smaller, chiefly because of the small patches given by the communities to carpenters, barbers, and other village servants. In the size of holdings there is but little difference between those of tenants with a right of occupancy and those of tenants-at-will; in both cases, however, a small allowance must be made for pahi cultivators, or cultivators holding outside their own village, who thus sometimes appear twice. Allowing for these, the average cultivating holding is about  $5\frac{1}{2}$  acres on the right and  $7\frac{1}{2}$  acres on the left of the river. Caste has not much effect on the average size of holdings beyond the broad distinction between castes related to the proprietary body and the more menial clans, the latter naturally holding the smaller area. The case of the Gújars is an apparent exception to this, but they hold chiefly in villages under the hills or among the ravines, where the soil is inferior.

Turning to rates of rent, the great point to be noticed is the absence of any real effect of caste, &c., on rent-rates on the west of the river, the right of occupancy rate coming out actually higher than that of the tenants-at-will. This is due to the prevalence there of revenue-rates. On the east of the river, where real rent-rates are found, it will be seen how evenly they run, and that in this district at least caste has no appreciable effect on rents. Of the chief cultivating classes Brahman tenants-at-will pay the highest rate. There are two apparent exceptions to this—Kachhis and Mallahs, but the former pay high rents because of their well-known cultivating industry, and the latter low because the chief portion of their holdings lies in the pure Jumna sand, where at a great expenditure of manure they raise melons.

Coming next to the relative importance of each caste and tribe in colonizing the district, I give a statement showing the number of villages held by each caste when we conquered the country early in this century:—

*Trans-Jumna.*

Pargana.	Jāts.	Brahmans.	Malkhanas.	Gahlan Thá- kura.	Kayaths.	Mohammedans.	Ahírs.	Jadons.	Gújars.	Fakírs.	Chamar.	Kachwaha Thá- kur, pure.	Chauhan Thá- kur, pure.	Chobdar.	Jaiswars.	Bargujar Thá- kur.	Jais Thákurs, impure.	Mixed class.
Sahpau	8	4	1	10½	...	...	5½	...	...	...	1	1	2½	½	...	...	...	2
Sadabad	57	9½	...	18½	...	...	...	...	...	...	...	...	5½	...	2	½	...	1
Mahában	129	39	1	...	11	3	2	1	1	1	...	...	...	...	...	...	...	21
Mát	28	6	2	...	...	...	...	...	...	...	...	...	...	...	...	...	20	1
Moh Jhil	83	9	4	...	1	1	...	...	...	...	...	...	...	...	...	...	2	...
Total	305	60½	8	29	12	4	7½	1	1	1	1	1	6	½	2	½	22	25



*Cis-jumna.*

Pargana.	Gaurua Thākurs.											Jadon.	Jat.	Brahman.	Gujar.	Malikana.	Ahivasi.	Muhammedan.	Kachwaha Thākurs pure.	Mixed clans.
	Kachwaha.	Bechhal.	Jasawat.	Gaur.	Tirkar.	Tomar.	Pomar.	Nirban.												
Muttra	33½	...	14½	6½	6½	3½	1	½	2	32½	20½	8	6½	2½	½	...	5½			
Chhāta	1	29	1	...	...	...	...	...	20½	6½	10	23	4	8	...	1	8			
Kosi	...	1½	...	...	...	...	...	...	8½	3½	3	2½	...	1	7½	...	...			
Total	34½	30½	15½	6½	6½	3½	1	½	29½	77	33½	33½	10½	11½	8	1	13½			

In this statement the size of the unit, that is the village, is a varying one, but as no particular caste has the monopoly of large villages or of small ones, the statement is relatively fairly accurate in the view it gives of the importance of each caste in the peopling of the district. It will be necessary to examine the chief of these castes in detail.

*Brahmans.*

Name of pargana.		Proportion borne by Brahmins to the whole population.	Proportion of the area now owned by Brahmins.	Proportion of the area cultivated by Brahmins as—			
				Sir.	Right of occupancy tenants.	Tenants-at-will.	Total.
Sahpau	...	17.3	38.6	7.3	9.0	8.8	24.6
Sadabad	...	14.6	16.7	3.3	5.6	9.3	17.3
Mahāban	...	18.2	31.2	5.4	10.7	5.6	21.7
Mát	...	19.3	25.6	5.6	8.3	16.2	30.1
Noh Jhil	...	15.9	16.4	7.7	4.7	7.8	20.2
Muttra	...	20.4	22.6	6.4	8.5	2.9	18.8
Chhāta	...	20.2	19.4	12.9	6.6	4.8	24.3
Kosi	...	12.5	12.2	7.4	2.0	3.5	12.9

The total number is 131,636, and therefore this caste is numerically important. It owns now, too, not far from one-fourth of the whole area of the district. Most of the Brahmans are Gaurs, but none of them emigrated into the district and colonized it in the same way as did the Játs and Thákurs a very great number of them came with the Jats as their family priests, and a large part of the area they own lies imbedded in the Ját villages. In fact, it seems to have been a custom of that tribe to always set aside a portion of a newly founded estate for the family priest; these Brahman zamindars hold on and cultivate to this day side by side with the Játs, having and claiming no special privileges beyond that appertaining to owning the land. In places where a share of the village was not given, it was frequently the custom to make over in full proprietorship an entire estate. A large portion of the tribe, too, have no connection with the land, but serve the numerous temples in the district. As a rule, the Brahmans in the district do not bear a very good character, their holy reputation seems to set them above ordinary moral restraints. They are frequently lenders of money, especially in the Trans-Jumna parganas, and though there is only one family of any standing among them, there are some who have risen to affluence as usurers, and purchased considerable estates from their neighbours. The single family with any claim to gentility is that of the Pachauris of Gukhrauli in Mahāban; this family migrated there from across the Jumna within a recent period. Since the emigration several of the members have obtained posts in the higher ranks of the Government service, and the family has acquired large possessions in this district and in Agra. Among the wealthiest of the Brahman caste must be counted the family of Jag-dispur in pargana Mahāban, which has acquired about five villages, and that of Salahpur Chandwara, of Sadabad, which owns about 8. The Brahman family of Chhahari, in Mát, is also well off. All these three last have acquired their property by lending money

at interest. Among the Brahmans there are two well-marked clans which deserve special notice. The first is that of the Chaubes of Muttra, and the second is the *quasi-Brahmanical* clan of Ahiwasis. The Muttra Chaubes are famous as wrestlers and notorious for their ignorance and the greed with which they pursue their hereditary calling of guides to the holy places of Muttra. They are an illiterate body of men, and, though looked up to by pilgrims from a distance, command no local respect. As zamíndars and cultivators they play but a very subordinate rôle, but they own, scattered in different parts of the district, a good deal of revenue-free land. The Ahiwasis are a body of men not found, I believe, out of this district; local jealousy denies them even their claim to be considered as Brahmans. The only body of them on the east of the Jumna furnishes the hereditary Pandas of the Baldeo temple in Rirha of Mahában, which is one of the wealthiest of the Muttra shrines. Mr. Growse, in his Memoir, has given a description of this temple. Attached to it, and managed by the Ahiwasis, are several revenue-free villages in Mahában, in some of which they are zamíndars as well as muáfídar. To the west of the Jumna they appear in no sacred character, but merely as zamíndars and cultivators; they do not number much over 8,000, and they have managed to retain their possessions nearly intact without, however, encroaching on their neighbours. They are a race well marked by several peculiarities. In appearance they are easily distinguished: the men by their head-dress, and the women by their way of wearing their hair. Their favourite occupation is the carrying trade. Trading in their own carts, they carry salt from Rajputana all over Northern India, bringing back sugar and other commodities in return. The better off trade with their own money, and, in fact, the heads of the community are very fairly comfortable, and their villages are remarkable for the number of good masonry houses. At the same time, these distant journeys keep the male population absent from the villages for months at a time, and the tilling of the fields is left entirely to the women. It is therefore natural that as easily as an Ahiwasi may be recognized by his appearance, and his village by the number of carts, cattle, and masonry houses, so his fields may be told by their careless and slovenly cultivation. The Ahiwasis complain bitterly of the havoc the net-work of railways, now spreading over the country, is playing with their old occupation.

*Játs.*

Name of pargana.	Proportion of Játs to population.	Proportion of area owned by Játs.	Proportion of area cultivated by Játs as—			
			Sir.	Right of occupancy.	Tenants-at-will.	Total.
Sahpan ...	6.0	9.0	4.9	2.9	6.3	14.1
Sadabad ...	27.8	36.6	19.2	12.9	18.9	51.0
Mahában ...	28.4	37.1	22.0	19.3	16.8	58.1
Mát ...	10.3	12.6	3.8	5.3	9.3	18.4
Noh Jhíl ...	30.8	52.0	31.2	12.2	18.1	61.5
Muttra ...	13.2	34.0	13.7	8.5	6.5	28.7
Cbháta ...	4.8	10.3	4.0	2.9	2.0	8.9
Kosi ...	27.2	56.9	41.6	5.0	10.0	56.6

Thus Játs in four parganas hold actually more than half the cultivated area, and in the rest of the district form an important element in the agricultural population; they are in fact the backbone of the agricultural classes, and, in a settlement point of view, by far the most important caste. In no other district of the North-West, except Meerut, are they, numerically, so strong; and even in Meerut they do not form so large a proportional element of the population. They are returned as numbering 140,384; this body is broken up into several subordinate clans each known as a *pál* or *got*. Marriage within the *pál* or *got* is forbidden, and it is considered, as among Thákurs, a point of honour always to marry daughters into a higher *pál*, sons taking their wives from a lower one. But, as a fact, the marriage customs among the Játs are not very strict, as they are among the castes which adopt *kirao*. By this custom marriage with a deceased brother's wife is legitimate; but the most peculiar custom is

that regarding concubines. For, without marriage, a woman of any caste (*dharaicha*) may be taken into the house, and her children are considered to be of the father's caste and to have equal rights of inheritance with his other children; and not only so, but, in some cases, the child of such a woman by any previous husband, of whatever caste, whom she may bring with her to her new home, has rights of inheritance in his step-father's family. Such children are known as *lainrara*. The name of the chief *páls* or *gots*, with the number of villages they have founded in each pargana, are as follows :—

Name of pāl or got—that is, sub-division of the Jāt caste.				Villages founded by Jāts in parganas—								
				Sadabad.	Sahpau.	Mahāban.	Māt.	Noh Jhil.	Muttra.	Chhāsa.	Kosi.	Total.
Nohwar	...	...	...	1	...	1	...	66½	...	...	...	68½
Pachahra	...	...	...	...	...	21	18	...	...	...	...	39
Kuntel	...	...	...	...	...	...	...	28	1	...	...	29
Haga	...	...	...	16	...	13	...	...	...	...	...	29
Rawat	...	...	...	3	...	15	2	...	1	...	5	26
Badhautia	...	...	...	13	3	...	...	...	...	...	...	16
Bahinwar	...	...	...	...	...	...	...	...	...	15	...	15
Godhe	...	...	...	...	...	14	...	...	...	...	...	14
Narwar	...	...	...	...	...	...	...	13½	...	...	...	13½
Suralt	...	...	...	1	...	12	...	...	...	1	...	14
Sakarwar	...	...	...	...	...	12	...	...	...	...	...	12
Tehnua	...	...	...	9	...	...	...	1	...	...	...	10
Gathauna	...	...	...	1	1	...	...	...	...	8	...	10
Dusār	...	...	...	...	...	9	...	...	...	...	...	9
Bharangar	...	...	...	1	...	8	...	...	...	...	...	9
Gaur	...	...	...	...	...	8	...	...	...	...	...	8
Dhankar	...	...	...	1	1	5	...	...	...	1	...	8
Mithe	...	...	...	...	...	3	3	...	...	...	...	6
Denda	...	...	...	...	...	...	...	...	...	...	6	6
Gabar	...	...	...	2	...	...	2	...	...	...	...	4
Chhonkar	...	...	...	1	...	3	...	...	...	...	...	4
Minor clans	...	...	...	8	3	5	3	2	3½	4½	3	32
Total	...	...	...	57	8	129	28	83	32½	6½	38	282

The Nohwar and Narwar, who are so nearly related as to be prohibited from inter-marriage, form, therefore, the most compact and important body of Játs in the district; the former take their name from their original settlement of Noh Khas, the latter have their head quarters in Barauth. Their position in the caste may be estimated from the fact that, while they take their wives from the Pachahras and other clans of the south, they only give their daughters to the Sinsinwárs and other superior clans of the west. They claim, of course, a descent from Pirthi Ráj; but, coming to later times, they say that their common ancestor lived in Jartauli of Aligarh.\* He had two sons, one of whom, Rati Rao, settled in Noh, while the other colonized Narwar. The children of Rati Rao gave up Noh to their family priests and founded the villages of Bhenrai and Bajna, whence they spread over the pargana; a descendant of the brother who settled in Narwar founded Barauth, from whence have sprung the hamlets which now constitute several separate villages. These Játs are a fine well-made set of men, straight forward and comparatively truthful, but turbulent and intensely clannish in spirit. In the mutiny they attacked and plundered the tahsili and several patwáris suffered for their unpopularity with their lives. They were, in fact, assisted actively or passively by the whole pargana, and of all the villages only one, Tehra, was found faithful, the Malkanas of which sheltered the tahsildar and his officials. In return they received some money rewards, and one-tenth of their revenue was remitted for the term of settlement. The Pachahra founded talúka Aira Khera of Mahában, and thence talúka Dunetiya of Mát. The Kuntel are found in talúka Sonkh of Muttra and the neighbouring large villages of Mungerra, Bachhgáon and Páli. The Rawat, Godhe, and Dusár have their headquarters respectively in talúkas Sonkh, Ráya, and

\* Perhaps they were driven out by Ibrahim Lodi, when he attacked Jartauli, for rebellion.—Elliot's *Historians*, Vol. V., p. 104.

and Sonai, all of Mahában. When we acquired the country the Ját Rája of Bhartpur owned some property to the east of the Jumna and had certain rights on the west. To the east of the river he now owns the village of Panigaon in Mahában and nearly 400 acres of land in four other villages of the same pargana and a small patch in Mát; for these lands he pays no revenue to Government, and in the village of Panigaon the zamindari rights were conferred on him after the mutiny of the zamindars in 1857. To the right of the river, he owns the whole of the village of Sakitra near Gobardhan, for one-quarter of which he pays no revenue; he further owns 500 acres of revenue-free land scattered over several villages. Up to 1825 the pargana of Gobardhan was also held in jágir by a near relative of his family. On the east of the river we found on the conquest two powerful Ját chieftains in possession of nearly the whole of the area as talúkadars. The history of their connection with the district is elsewhere related. Rája Bhagwant Singh of Mursan retained certain talúkadari and zamindari rights in Mahában and Mát after he lost the farm. His son, Rája Tikam Singh, C.S.I., of Mursán, died early in 1878 at a great age, and has been succeeded by his heir, who is still in possession of the property saved by Bhagwant Singh from the wreck. Daya Ram of Háthras, more unbending than his powerful neighbour, had to be driven out by force, and both he and his son Gobind Singh lived for many years in great poverty. In the mutiny, Gobind Singh remained passive, and he was rewarded with some confiscated property in other districts and also the confiscated villages of the Gújars in Chhátá and Kosi. Since his death his widow, known as the Rani Sahib, Kuar, who has adopted a member of her husband's family, lives at Bindrahan.

## Thákurs.

Pargana.	Proportion borne by Thákurs to the whole population.	Proportion of area owned by Thákurs.	Proportion of area cultivated by Thákurs.			
			Sfr.	Right of occupancy tenants.	Tenants-at-will.	Total
Sahpau	6.6	24.7	4.9	5.0	6.6	16.5
Sadabad	4.8	9.8	2.9	3.2	4.9	10.0
Mahaban	0.8	5.1	0.8	0.5	0.3	1.6
Mát	15.6	35.9	8.9	5.7	17.7	32.3
Noh Jhil	1.5	3.5	1.5	0.9	0.9	3.3
Muttra	7.3	18.5	3.6	11.4	5.6	30.6
Chhátá	22.9	39.1	16.8	10.5	9.1	36.4
Kosi	5.0	10.4	5.4	3.1	1.6	10.1

Thákurs are, therefore, found chiefly in Chhátá, Mát, Sahpau, and Muttra, but nowhere do they form so large a proportion of the population as do the Játs in the parganas which are their headquarters. About six-sevenths of the Thákurs are of impure blood and are not admitted by the higher clans to an equality with themselves. The crucial test of purity of blood is the rejection of the custom of *kirao*, which has already been described as obtaining among the Játs. The Gahlaut, Chauhan, and Bargujar clans of Sahpau and Sadabad are pure, but with the exception of the resident zamindars of a few other villages all the remainder are of impure blood. In the census the clans are thus given; the distinction into pure and impure has been made by me:—

Pure	...	Gahlaut	...	...	...	2,504
		Chauhan	...	...	...	3,119
		Bargujar	...	...	...	550
Impure	...	Jádon	...	...	...	14,668
		Jais	...	...	...	7,046
		Gauras Gaur	...	...	...	1,350
		" Ponwar	...	...	...	934
		" Bachhal	...	...	...	6,019
		" Kachhwaha	...	...	...	7,829
		" Jasawat	...	...	...	2,309
		Miscellaneous	...	...	...	10,087
				Total	...	56,313

The Gahlauts are hardly found west of the river Jhirna in Sadabad, and neither among them nor among the other Thákurs of the pure blood is there any local family of distinction or importance. The Bargujars have none, and the Chauhans but little, of their hereditary property left, while the Gahlauts have allowed much of their land to pass to strangers. East of the Jumna the only impure clan is that of the Jais of Mát; they are more careful cultivators than the clans across the Jumna, and have succeeded in retaining a good deal of their hereditary property; they boast no family of any standing. In the Cis-Jumna tahsils the Jádons are the most important clan. In the north-west of Muttra they acquired a few villages, and they own some in Kosi, but the main body is found in Chhátá. Though not remarkable as cultivators, they are a thrifty body of men, somewhat given to lending money at interest, and the masonry houses scattered about their villages give them a more comfortable look than those of their neighbours and nearest allies, the Gauruas. There is no resident family of any distinction, but an off shoot from the clan, the Awa family in Jalesar, has acquired great wealth. The Rája of Awa has purchased seven villages from the Kachhwahas in Muttra. While the Jádons have, therefore, succeeded in rather more than holding their own, the Gauruas have been fast losing their property, and, thriftless and bad cultivators as they are, there is no matter for surprise in their fall. The Jasáwats owned formerly the villages around and beyond Gobardhan, while the Kachhwahas held the centre and east of pargana Muttra, but of their original possessions a mere fraction remains to them; the Bachhals of Chhátá have been more fortunate, but in spite of most lenient treatment at last settlement several of their villages have passed from them entirely, and there is hardly one in which more or less of the area has not been transferred to other hands. The only family of note among the Gauruas was that of Chaudhri Daulat Singh, Kachhwaha of Rál, a man much respected in his time, who for his services in the mutiny was given two villages in Chhátá and Rs. 7,000 in money. Since his death his sons, who do not bear a good character, have been rapidly squandering their inheritance, and they will soon sink to the level of the peasants around them. Among non-resident Thákur zamíndars the most important is the Rathaur ruling Rája of Kishangarh, who owns, as the grantee of the revenue, the large Ahivasi village of Palson of Muttra, in which, as he is in managing possession, he has succeeded in acquiring a considerable portion of the zamíndari rights :—

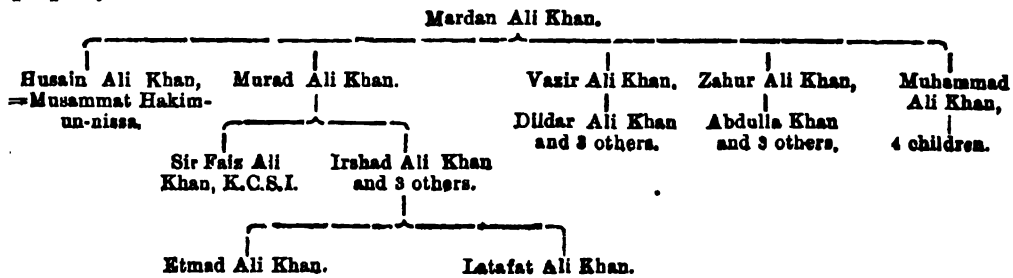
**Muhammadans.**

Pargana.	Proportion borne by Muhammadans to the whole population.	Proportion of the area owned by Muhammadans.	Proportion of the area cultivated by Muhammadans.			
			Sir.	Right of occupancy tenants.	Tenants-at-will.	Total.
Sahpau ...	2.5	3.4	...	...	...	...
Sadabad ...	7.8	13.1	0.1	0.6	0.9	1.6
Mahaban ...	4.4	3.5	0.3	0.3	0.5	1.1
Mát ...	4.9	8.1	0.4	0.5	1.5	2.4
Noh Jhál ...	3.8	3.4	0.6	0.4	0.8	1.8
Muttra ...	9.0	2.9	1.3	2.7	0.9	4.9
Chhátá ...	8.0	2.3	0.7	1.5	2.2	4.4
Kosi ...	11.4	2.0	3.1	0.9	1.5	5.5

In a district so strongly Hindu in feeling the Muhammadans have been always in a minority. They are divided into Malkanas and Muhammadans. Malkanas are Hindús (mostly Jais and Gauruas) who have been converted to Muhammadanism by the sword, but who still retain many Hindu customs and often are called by Hindu names. Their possessions were never very large, but, though careful and close cultivators, only a portion of what they once had is now in their hands. Of the other Muhammadans, there is only one family with any pretensions to antiquity—that is, the Saiyad colony of Mahában, who claim a descent from a Mashad adventurer, Sufi Yahaiya, who conquered the town from the Hindús, in the reign of Ala-ud-din, by the stratagem of introducing his armed men into the fort in litters as Hindu ladies on a pilgrimage;

they own three villages in pargana Mahában as part of their ancestral property, and another village has been acquired by them. The head of the family is now officiating as tahsildar of Chhátá.

The Muhammadan family settled at Sadabad is, though not boasting a long ancestry, the one of the most importance in the district. The head of the family is Musammat Hakim-un-nisa, the widow of Kuar Husain Ali Khan, son of Imdad Ali Khan of Chhatari in Bulandshahr, by whom the property in this district was first purchased. This family is descended from Bargujar Thákurs who became Muhammadans in the reign of Aurangzeb; the members of it are usually known as *Lálkhani*, and have had considerable influence in the parganas lying east of the Jumna. Dundi Khan of Kamona, in Aligarh, of this family, was one of the important chieftains whom we found in these parts at the conquest: to conciliate him his son Ranmast Khan was given the farm of Noh Jhil, but he had to be forcibly expelled, before the end of the period of his farm, for his exactions and tyranny. Two other of his sons, Ashraf Khan and Mazhar Ali Khan, obtained by purchase the whole or part of nineteen villages in Noh Jhil, but they were turned out of the pargana by the villagers in the mutiny, and, joining the rebels, their property was all confiscated and given to the head of the Muttra banking firm, Seth Lakhmi Chand, for his good conduct during the same time. At the time of his son's expulsion from the farm of Noh Jhil, all the then estates of Dundi Khan of Kamona were confiscated and given to his relative Mardan Ali Khan, who also purchased the Sadabad estate. The following genealogical table shows the relationships of the members of the family who have owned property in this district:—



Musammat Hakim-un-nisa is now in possession of about nine villages in Sadabad and others in Jalesar and elsewhere. Etmad Ali Khan, her husband's grand-nephew, is her presumptive heir. Dildar Ali Khan acquired the two villages of Bhadanwara and Uhawa in Mát: he lived in the former, and was killed there in the mutiny by the villagers in the neighbourhood, who had various griefs against him. After his death Bhadanwara was sold by order of the civil court to pay his debts; his heirs still hold Uhawa. Sir Faiz Ali Khan, K.C.S.I., who is high in Government employ, has bought one village in Sadabad. Abdulla Khan has obtained property in Karahari and other villages of Mát. Musammat Zeb-un-nisa, widow of Qamar Ali Khan, has also shares in some villages in Sadabad. Zahur Ali Khan purchased two estates in Sadabad which he made over to one Farhat Ali Khan, whose heir, Ghulam Muhammad Khan, is now in possession. The chief of the remaining Muhammadan landlords are found in pargana Kosi, where, however, they are communities owning and cultivating villages and having no individuals of any consideration. The main bodies are those of Kosi itself, Dotana, and Shahpur.

Of the 44,514 Baniyas more than half are Agarwáls. The Baniya caste has long been a powerful one in this district, both from the wealth of many of the chief men, and from the fact that most of the petty money-lenders and by far the majority of the patwáris are of this caste. Several of the hereditary kúnungos are also Baniyas. The Seth family of Muttra is the most important. The founder of the firm was one Parakhji, a Gujrati Brahman, who, quarrelling with his relations, left his property to his headman, Mani Ram, a Saraogi Baniya. He had three sons, Lakhmi Chand, C.S.I., Gobind Das, C.S.I., and Radhakishan. They are all dead, Lakhmi Chand leaving one son, Raghonath Das.

and Radhakishan, one son, Lachhman Das. Raghonath Das, who has now separated from Lachhman Das, owned the estate of the Lalkhúnis in Noh Jhíl, confiscated for mutiny and given free of revenue, for his life, to his father, Lakhmi Chand ; but he has made over the zamindari to the Dwarka Dhis temple of Muttra and retained the half revenue, which Government has granted him for his lifetime, for his own support.' The villages owned by the other two members of the family, consisting of some fifteen villages in this district and twice the number in Agra, were made over to Swami Rangacharya, the head of the Seth's temple in Brindaban, who, before his death, made them over to a committee in trust for the temple. The next most important Baniya family, in a settlement point of view, is that of Ráya. Nand Rám was a petty trader who laid the foundation of wealth in the great famine of 1837-38. He had three sons, Mangni Ram, Mihin Lal, and Bhajan Lal. From these have now sprung three separate branches—Mangni Rám's adopted son, Janki Parshad, who now owns Bhadanwara in Mát, Kota in Muttra, and shares in seventeen villages in Mahaban ; Mihin Lal, who is alive and owns part of Arua of Mát ; Bhajan Lal, who had two sons, Jamna Parshad and Manohar Lal, who own the whole of, or shares in, ten villages in Mahaban. The family are very hard landlords, and, besides their zamindari, also trade in grain and indigo. Mitr Sen of Háthras owns six villages in pargana Sadabad, but is deeply involved. Sah Madhuri Saran and Phundan Lal, Lucknow bankers, who live in the Lalitkunj temple in Brindaban, have acquired some property west of the Jumna. The other Baniya landlords, as Goverdhan Das and others of Muttra, are of less importance.

Dhúsars are a peculiar clan who, emigrating from the neighbouring district of Gurgaon, have acquired considerable property and influence. They claim to have descended from a Brahman by a Baniya woman, but are usually classed as Baniyas. They combine the office aptitude of the Káyath with the keen scent for money-making and the flinty-heartedness to a debtor characteristic of a Baniya. They are consequently mostly hard landlords and wealthy men. They are hereditary kanúgos of Muttra and Chháta. Of the Muttra colony Thákur Das and Sita Ram own the whole of, or shares in, fourteen villages in Sadabad ; while Shyam Sundar Das, one of the wealthiest men in the city, owns two villages in Chháta and some land in Muttra. The Chháta colony came from Sahar ; the family of the hereditary kanúgos there owns three or four villages, and another family, which has supplied some tahsildars to the English Government, but which is now involved in debt, owns two or three more.

The Káyaths have much less power and influence in this district than they have in most, their place in petty offices being largely taken, as we have seen, by Baniyas ; still they furnish one hereditary kanúgo each to Mahában, Kosi, and Chháta. The old kanúgo family of Noh Jhíl was Káyath, but it has been reduced to great indigence. The total number of the caste is 3,288, and among them there is no resident zamindar of any importance. Of the non-residents, the heirs of the Bengali Lala Babu, who acquired his property early in this century by wandering about the district dressed as a religious mendicant professing great sanctity and persuading the zamindars, then ignorant of the full value of their rights, to part with their villages to him for the most ludicrously inadequate considerations, is the only one of note. The income from these villages annually is now about four times to five times the sum paid for them originally, and as large properties were also purchased by him in Bulandshahr and in Bengal, the family is now reckoned among the wealthiest in Bengal. In this district almost all these sales were made merely by the lambardars, the pattidárs never having been consulted. As there was no enquiry into rights and no record of them until Regulation VII. of 1822, this matter was not known. Mr. Boddam then made some attempts to remedy the injustice, but was foiled by legal difficulties. The income from the villages in this district is devoted to the Krishn Chandrama temple in Brindaban, which was founded by the Lala Babu. Whether there were any

verbal stipulations between the former zamíndars and the Lala Babu as to the lenient treatment of the former, cannot be said, but no such leniency has ever been shown them. The estate is managed by agents living in Brindaban, and its owners, 1,000 miles away, know little of and care less for it. It is further unfortunate that the present settlement has fallen while the owners are minors, and the estate under the management of the Court of Wards of Bengal, as it has been considered that Court of Wards could show no leniency not allowed by the law, and no consideration of the way in which the property was originally acquired has been admitted to influence the treatment of the tenants. The estate consists of four villages in Muttra, ten in Chhāta, and one in Kosi, almost all large villages and famous as places of pilgrimage.

The religious classes, as Gúshains, mendicants, &c., number 16,012. Of these there are several who own more or less land, but the largest zamíndar is Purshottam Lal, the head of one of the Gokul sects, who holds seven or eight villages and is a man of great wealth. He is himself a person of good character, but is exceedingly unfortunate in his agents, through whom his estates are entirely managed. Among the other Gúshain landlords are Gúshain Girdhar Lal, late of the Udaipur State, Gúshain Akhalanand, Máhant Banmali Charan, and others.

Gújars now only number 7,148, as, after their defeat near Shergarh in the mutiny, there was a considerable emigration. They only retain a very small proportion of what they once held. In Kosi they have nothing left, in Muttra very little, and in Chhāta they have lost 13½ villages. They bear much the same character here as in other districts of the North-Western Provinces. They are poor cultivators, turbulent, and addicted to cattle-lifting. Their villages, confiscated for mutiny, were given, as has been said, to Rája Gobind Singh, of Háthras. There are only about 500 of this caste to be found east of the Jumna.

Of the widely-spread caste of Ahírs there are only 5,864 in this district, of whom nearly half are in Sahpau and Mahában. They have in these parganas retained a good deal of their landed property, especially in the former, contrasting well there with the other tribes who have parted with so large a portion.

Of Chámars there are 111,314, spread very evenly all over the district. As owners of land they are very subordinate, but they cultivate, chiefly as tenants-at-will, some 5 or 6 per cent. of the area. They are mostly employed as day-labourers by the zamíndars.

The Koli or weaver class number 17,498; they suffer extremely in famine years for two reasons. The price of cotton, from the failure of the crop, ranges so high that it becomes prohibitory, while the general poverty stops the demand for cloth, which falls in price. This was very marked in the scarcity of 1877-78, when this class underwent great privations.

Taking the minor castes famous as cultivators, there are only Kachhís, 4,622; Malís, 7,405, and Kúrmis, 3,841. Garáriyas, who are chiefly employed in sheep-tending in the ravines, number 14,152; and Malláhs, who, besides working the boats on the river, have some cultivation in the valley, 5,609. Taking next village servants we find the following :—

Barhál or carpenter	...	...	...	...	14,004
Nái or barber	...	...	...	...	12,000
Bhangi or sweeper	...	...	...	...	12,000
Dhobi or washerman	...	...	...	...	5,810
Kahár or Hindu water-carrier	...	...	...	...	7,166
Khátik	...	...	...	...	6,651
Kumhár or potter	...	...	...	...	9,913
Dárzi or tailor	...	...	...	...	3,693
Lohar or blacksmith	...	...	...	...	3,165

The other castes are of less importance.



On the left bank of the Jumna the most noteworthy tenures are those of the large talúkas of tappa Ráya, Ar Laskarpur, Madim, Sonkh, and (a) Trans-Jumna. tappa Sonai with Aira Khera in Mahában and Dunetiya of Mát. In all these, several separate estates are so intermingled that it has been found impossible to measure them separately, while in several of them all the estates own shares in the old parent *khera*, or site from which the present separate villages have sprung. This brings us to the probable origin of these tenures. It would seem that all the Ját shareholders (for they are peculiarly Ját institutions) are really or theoretically descendants of one man, the original founder of the estate. As his descendants increased and the cultivation around the old site grew, so new colonies of share-holders planted themselves in hamlets near their fields, separating off their cultivation, but still retaining their share in the ancestral *khera*. Other examples of these tenures may be seen in the Ját village of Bajna of Noh Jhíl, which has been broken up into three separate estates, and in Mangerra with four similar villages, Bachhgaon and Pali with three, and the talúka Sonkh with 21 villages, all in tahsíl Muttra. In fact, this tendency of the Ját caste to found new offshoots from the parent village as the community grows, while at the same time the interest in the parent site remains undiminished, is strongly marked all over the district except in Kosi and the north of Chhátá, where the Játs have, like their neighbours there, clung to large undivided villages. The Mahában talúkas are of considerable size: thus Aira Khera has 22 separate estates, covering an area of nearly 18,000 acres, and Ráya 24 estates, covering nearly 12,000 acres. Mr. Daedes' description of tappa Sonai with Aira Khera is quoted here as giving an excellent idea of their peculiarities :—

"The ancestors of the present Pachahra Ját zamíndars first established themselves in Aira Khera about 200 years ago, where the brotherhood, inhabiting this spot and holding all the adjoining lands, became very numerous. An amicable division of the entire raqba (area) took place during the lifetime of the common ancestors of Inchraj, Rupal, Sikam, and Bharera; a distinct taraf or quarter was allotted as a portion to each of the four sons, according to his wishes, or his means, of bringing more or less land into cultivation, and the *khera* was left without any land, but continued, in common, the property and occasional place of residence of all.

"The land tenure throughout the pargana is the bhaiáchára in perfection; all the brotherhood, descendants from a common stock, share in common, and all village transactions, subdivisions, assessments, &c., are effected on a village bigha or chak composed of a varying number of kucha bighas.

"At the time of the original subdivision or partition each of the four tarafs or quarters' was distinctly set apart; each bigha chak was then understood to consist of about 300 kucha bighas of the varying classes of soil, so apportioned that the relative value of each chak should be as nearly equal as possible, and the proportion allotted to each taraf was as follows :—

			B. b. b.
Inchraj, north-west of the khera	...	...	47 0 19
Rupal, north " "	...	...	94 13 16
Bharera, east " "	...	...	59 13 18
Sikam, south-west " "	...	...	72 15 6
			<hr/>
			274 3 19
Kasba Sonai	...	...	39 7 19
			<hr/>
Total	...	...	313 11 18

"On the same principle that the above partition had been made similar batwara subsequently took place within each taraf or quarter. The panchayat of each taraf adopted a chak of whatever number of bighas was best adapted to their circumstances (always taking care that the relative value of each bigha chak was the same), and subdivided the whole into four or five mauzas or thoks in each taraf, which, again, subdivided themselves, as the population increased, into naglas or pattis on exactly the

*Does the mean  
equally inter-  
nalised to them  
practical share  
according to the  
table of descent?*

same principle. The tarafs are distinct from one another, compact in themselves, but within each taraf the land of each of the four or five villages contained in it are intermingled in a singular fashion, and the pattis in their villages in the same manner. The essential principle of the chakbandi being that each chak should contain the same relative quantity of good, bad and indifferent soil, the properties are, of necessity, constantly intermingled. In some tarafs, almost every alternate field belongs to a different one of the four or five mauzas contained in it. In others the pattis are apportioned in long strips of land belonging to each of the different mauzas, and then again subdivided on the same principle among the different naglas contained in each mauza, and among the different co-sharers in each nagla ; and yet with this apparent intricacy, I have hardly met with a disputed field, and not one case which was not easily and readily disposed of by the panchayat, which, like the other bhalachára institutions, exists here in great perfection.

" This chakbandi seems to have been little known even in 1816, for in that year pukka pillars were ordered to be erected to mark the boundaries of every estate. The lands being all intermingled as above described, the pillars of course mark nothing but the indolence or ignorance of the native authorities, who did not even remonstrate against an order so inapplicable to the circumstances of the case. In all official proceedings, too, the chak has been lost sight of, or rather kept out of view, and a pattidar, instead of mortgaging so many bíghas of the entire chak, has to convert it into biswas or biswansis before it is considered to be in office shape ; as if it were enacted that the ' integer ' of every village should be twenty, instead of the number which was originally fixed among the people themselves, with reference to the size of the family, advantage of irrigation, &c., &c.

" In addition to the cultivating brotherhood, tenants-at-will of every caste and description are settled, more or less, on estates, or cultivate the lands, as paikasht asámis from adjoining villages. Besides these there are several hamlets inhabited by very old Brahman asámis who cultivate lands sometimes in one village only, sometimes the shamilát lands of a whole taraf, who have continued to hold the same lands for 100 or 150 years, and have, both with and without the aid of the proprietary pattidars, sunk pukka wells and considerably improved their farms. Their leases are as often *vivá voce* as on paper, and though one party would seem to possess the option of raising the rent, and the other that of throwing up his lease, yet the rents in fact vary but very little. If the jama of the Government were raised, this class would certainly be called upon for increased rents ; whether they would be allowed to participate in the benefits of a decrease is more problematical.

" These people neither assert, nor do I believe them to possess, any rights whatever. Their landlords know their own interests too well to turn out or disgust a good and substantial tenantry ; and they, on the other hand, are well aware how much more essential to their prosperity is the goodwill of the pattidars than a patta from the Collector. This feeling alone would prevent their soliciting any such official protection, and accordingly their tenure has in no way been interfered with.

" In those cases where rent-free tenures have been, from the earliest, excluded from the chakbandi, they have been equally respected now ; in other cases, as of small alienations made by the zamíndars in favour of their religious instructors or institutions, as these lands were not excluded from the chakbandi, so they have been now also included in the estimated jamabandi. Almost every estate has a Bairagi's asthal upon it, surrounded by a glebe, varying from 10 to 20 bíghas, the tenure of which appears nearly coeval with that of the pattidars themselves. These alienations have not been formally or officially recognised ; but to have interfered positively with them would have caused great dissatisfaction, and under the arrangements now made, I believe that all real *bona-fide* tenures will be respected, while all improper or surreptitious claims will be rejected at once by the communities."

He thus describes tappa Ráya :—

“ The lands attached to Ráya khas were, many years since, apportioned among

* Taraf Larim.	Taraf Sogmal.	Taraf Nonga.	three* tarafs or quarters ; Larim containing seven mauzas, Sogmal containing five mauzas, and Nonga six mauzas. The entire area was set out into 511 bighas
1. Nagal. 2. Thana Amar Singh 3. Chura Hansi. 4. Narwa Hansi. 5. Kharwa. 6. Tirwa. 7. Koil.	8. Gonga. 9. Achru. 10. Dhaku. 11. Suraj. 12. Malhe. 13. Bhainsara.	14. Sehra. 15. Parari. 16. Bauna. 17. Saras. 18. Bhima.	

chak, each chak being equal to about 80 kucha bighas, and each containing, as far as possible, an equal proportion of good, bad, and indifferent lands ; each estate subsequently subdivided itself into pattis, &c, according to circumstances, and all adopted, as more convenient for subdivision, a village bigha equal to about four kucha bighas, or about two-thirds of an acre, and by this bigha all assessments and other village transactions have hitherto been regulated. The raqba of each of the three tarafs is, generally speaking, separate and distinct, though the lands of the different estates comprised within each taraf are intermingled in the same manner, though not to the same extent as in Sonai. The lands immediately about the khera of Ráya khas are an exception, for here every other field belongs to a different mauza and taraf, and yet not one dispute about fields was brought before me in the whole pargana.”

Except in Noh Jhíl, where the tenures of some of the villages resemble those of the Cis-Jumna tahsils, the remaining tenures in the Trans-Jumna tahsils present but little worthy of notice ; each man's separate ownership is recorded and his rights in the common land are clearly defined.

Coming to the Cis-Jumna tahsils the matter is different. Here any attempt to bring the tenures within the accepted definition of zamindari, pattidari, and imperfect pattidari would be very misleading. For although all village communities are governed by the customs of the brotherhood (bhaichára), and are therefore so allied that they should be discussed together, these customs vary so greatly in different villages that some of them would, if the definitions of the Directions to Settlement Officers be adopted, be classed as zamindari, while others would be imperfect pattidari. They have been therefore divided into two classes :—

(1). *Zamindari*, which includes all cases where the estate is undivided and owned by one or more persons who manage it in common, each person's share in the profits being allotted to him according to his ancestral share.

(2). *Bhaichára*.—This includes all villages owned by a cultivating village community in which the payment of village burdens and the distribution of the profits of the estate are regulated by the custom of the brotherhood.

The first or zamindari tenure is too well known to need further discussion, but the second class is deserving of closer examination.

The primary division of these villages is into those where ancestral shares are unknown, and those in which they are known and more or less acted on. Where ancestral shares are unknown, a proprietor's rights in the estate are measured either by his actual cultivating possession or else by his separate possession as recorded in the khewat ; his share in the common land in the latter case being governed by the proportion this separate holding bears to the whole divided area. All the villages coming under the first head have by the new record of rights been converted into those of the second class, with the exception of the villages of Shahzadpur, in pargana Kosi, and Ghatam patti, pargana Muttra, where the proprietary community still prefer to arrange yearly for the cultivation of the estate, leaving each man's share undefined. Where ancestral shares are known, separate possession is generally

recorded in the khewat, but sometimes it is not. Where recorded, ancestral shares almost always govern rights in common land and sayer; but the separate possession may, according to the custom of the village, be liable to rectification according to ancestral shares, or it may not, thus constituting two separate classes. These redistributions are nearly always carried on privately by panchayats of the brotherhood, but when brought to our courts can be seldom enforced. Where separate possession is not recorded, a custom of separate cultivation has always prevailed, and this therefore corresponds closely to the class last mentioned; but here partition can be always carried out by our courts.

The most common subdivisions of a village are into thoks, pattis, and khatas, the khata being the ultimate undivided unit in which the co-sharers are always either members of the same family or nearly connected, and in which each individual can always claim partition according to his recorded share. In some villages, as in Dotana, intermediate between the patti or khata, are tafriks, whilst in other villages, as in Bukrari, kunbas occupy the same position. There are villages in which none, and several in which only one or two, of these subdivisions occur. In villages where thoks and pattis are found, and where ancestral shares are recorded, such ancestral shares never govern redistribution of land between such thoks and pattis. In many villages the custom has grown up for a sharer in an undivided khata to, with the consent of his co-sharers, mortgage individual fields, provided he does not exceed his share.

The customs regulating the payment of the burdens are as varied as those regulating the proprietary interest of the different members of the community. These customs, however, may be grouped under two great heads:—First, those by which the yearly collections from the estate are so regulated that no profits remain; and second, those by which there are profits, which are divided either by ancestral shares or according to village custom. Of the first class the simplest cases are those villages where, at settlement or revision of records, the revenue was distributed through thoks and pattis down to khatas, either according to ancestral shares or according to the value of the land owned. In most of these the common land is of small value, and on it no revenue is allotted; there are, however, a few exceptions, and cases do occur in which such land has to pay its separate portion of revenue. The other and more numerous cases are those where either the revenue is not distributed at all, or merely distributed between thoks and pattis. In such cases the revenue and expenses are paid by a bachh or rate, and accordingly as this rate is levied the villages may be divided into the following two classes:—

- (1)—Those in which all, both tenants in the common lands and zamíndars, pay the same bachh calculated either on actual cultivation or on the cultivable area recognized at settlement. In the purest examples of this class even tenants cultivating under a zamíndar in land held in severalty also pay the bachh, but it frequently happens that their rent in such cases is governed by contract rather than custom.
- (2)—Those in which the tenants cultivating in the common land pay at fixed rates or at contract rates, the balance required to meet the year's revenue and expenses being met by a bachh on the separate possession recorded in the khewat. In these cases cultivators almost invariably pay at contract rates for land held under zamíndars in their separate possession. In a few villages as in Khanpur of Chhāta, a curious anomaly had arisen from tenants paying at a fixed rate for common land. In these the rates were fixed at the revision slightly higher than the then prevailing bachh. On the imposition of the 10 per cent. local cesses, the tenants refused to bear any of the extra burden, on the ground that they had not been given bachh rates at the revision, and the consequence was that up to this settlement they paid lower rates than the zamíndars themselves.

This bachh or rate is imposed in a panchayat of the whole proprietary body. Where the revenue has been distributed on thoks or pattis, each thok and patti has its

separate panchayat and its separate bachh; in cases where the revenue is common to the whole estate, the bachh is the same for the whole village. It is usual for this panchayat to assemble only once at the end of the year to audit the accounts of that year; in such cases the autumn instalments of revenue are calculated roughly by the patwári and the lambardars. In a few cases, as in Agaryala of Chhátá, the accounts are separately totalled and audited for each harvest, and a separate rate on actual cultivation in that harvest is levied; dofasli lands only paying the autumn bachh. These cases are, however, rare. In a few villages where bhúr and puth are prevalent, the bachh on them is calculated at a lower rate than on more productive soils. The general procedure at the panchayat is somewhat as follows:—

First, the Government demand, including cesses and patwári's pay, is noted down; then the village Baniyas and the lambardárs produce their various accounts of sums expended on account of the community, and such items are individually discussed, and either passed or rejected. On the completion of this a total expenditure is struck, and from this is deducted all income from sayer items, and the calculation of the rate then proceeds according to the customs above explained.

In the second group of villages, where the custom of distributing profits obtains, either the system of bachh in accordance with the above rules is in force, a certain sum being added to the expenditure for this purpose, or else, as is more common, rent-rates, as opposed to revenue-rates, are collected; such rates may be uniform over the whole village, but generally lower rates on proprietor's cultivation, or severalty land, are imposed.

From what has been above said it is clear that many cultivators are recorded as only paying at revenue-rates, and very often, especially where they are of the same caste as the proprietary body, these rates are alone collected; but in some villages a custom called "marori," is in force, although not recorded, whereby small sums per bigha or per field are taken from the cultivators by the proprietors under whom they hold. In many villages proprietors derive a profit from lands which they do not cultivate themselves by mortgaging them to outsiders, either for terms of years or until repayment of the mortgage money; in the first case the land returns to its owner free of all charges at the expiry of the period agreed on.

Connected in these bhaiáchára villages with the tenure is the group of customs regarding mortgages among the brotherhood which has grown up; these mortgages very often do not appear in the khewat, and in many cases regular deeds are not drawn up. It is the custom for all persons having any dealings in, or connection with, land to keep a memorandum book (*bahi-khátá*). When such person takes any land on mortgage, an entry of the transaction (*khat*) is made, and this is often the only record. These entries, which are seldom challenged, are made by the patwári or some one else who can write Hindi, and they are always witnessed. When the mortgage money is paid up, the entry is scratched out solemnly in the presence of witnesses. In case of a dispute, panchayat is mostly resorted to. Mortgages are of two kinds, "gahna" and "ár." In the former possession always goes with the mortgage. The mortgagee cultivates the land or lets it, paying the dhar-bachh, and profits balance interest. On the payment of the original sum, the mortgagor regains his fields in the subsequent Jeth. There is no limit to redemption; land which has been mortgaged for upwards of 100 years being redeemed just as land which has only been in the possession of the mortgagee for one year. In "ár" the land does not change hands and interest is taken. "Ar" is generally for a short period and often turns into "gahna." Then interest ceases. For example, land pledged in the middle of the agricultural year may, according to agreement, become "gahna" in Jeth, when the original sum and interest up to that time are consolidated. "Darrahni," or second mortgage, is comparatively rare. If the mortgagee wants to remortgage the land, he generally takes the original mortgagor with him to the third person with whom he wants to deal, and has a fresh agreement written out in the name of the original mort-

gagor. From the sum received from the new mortgagee he deducts the amount for which the land was formerly mortgaged to him. Mortgage is in some villages adopted as a way of raising rents without breaking through the principle of dhar-bachh. For instance, B. cultivates under A. at dhar-bachh; A. mortgages part or the whole of B.'s holding to B. for a certain term of years, taking a certain sum from him, and at the expiration of the term, B. is bound to deliver up the land free of charge. Again, A. has more land than he can conveniently cultivate, and B., on the other hand, wants land; A. then mortgages a certain area to B. for a term of years and receives a certain sum of money, B. agreeing to pay dhar-bachh and to give up the land free of charge at the expiration of the term.

Where ancestral shares govern all the transactions of a community, there is no need to seek further for the origin of the tenure; all the sharers are or are assumed to be the descendants of one man, and their share in the property is the result of the laws of inheritance. Where, however, this fractional share is either not known or only in part governs the owner's interest in the village, the history of the origin of the separate area of land held known to the sharers in the bhaiáchára communities as their *dáda ildhi*, or the gift of God, is not so clear. But in the same way that the pure zamindar is a survival of the farmer or middleman of the period previous to our rule, so I consider these pure bhaiáchára communities are the survival of the old cultivating bodies who were always treated as having certain tangible, though perhaps difficult to be defined, rights in the soil. In short, that the history of the idea of separate ownership in land in these communities, in this district at least, is the history of a gradual crystallization from the crude arrangement of each member of the brotherhood cultivating as much of the area as lay in his power. In only two villages, whose names I have already given, does this arrangement, of each sharer cultivating each year what he can, obtain at this day; but there are many others of the few whose history remains in which this earlier stage can be traced. In some we find that the change in the position of the sharers took place just before the last settlement was made, as in Badangarh of Chháta. In many the introduction of khewats or records of each man's share in the village at the revision of records was the immediate precipitating cause, while even in others, as in Sehi of Muttra, the general course of thought and of administration has been too strong for the custom of the brotherhood; and although at the revision the village agreement specifies that the separate possession in the khewat is only a record of cultivating possession to be corrected by the recorded fractional shares at the will of the owners, the areas therein entered have been always treated as in the proprietary possession of the persons against whose names they appear. The case of Mírpur of Noh Jhíl is instructive; for, at the revision, the fractional share of each member was alone recorded in the khewat and all the sharers agreed that these fractional shares were the only measure of proprietary right, cultivating possession being merely continued as a convenience; yet, in spite of this, this cultivating possession, though differing *in toto* from the proprietary right, has superseded it and become itself proprietary right. This history, too, explains the existence of the *dhar-bachh* cultivators, or cultivators holding at the same rates as the proprietors, and only differing from them in not having a voice in the yearly audit. They are survivals of the time when no profit beyond cultivating profit was looked for from the land. The balance of the area after the wants of the managing body were satisfied was made over to the residents of the village; and among these residents those of the same clan as the brotherhood, but who either never had a voice in the management, or who for any cause had lost it, had the preference. And in an under-populated, not over-assessed country, this body of resident cultivators has been strong enough to hold its own, although the custom from which the rights originally sprung, that is, cultivating possession being the sole measure of right, has passed away; and, naturally where the custom of cultivators paying dhar-bachh has been in part broken into, the body of the same clan as the proprietors has always held on to the right

longest. Even in the purest bhaiyáchára communities, however, the theory of all the proprietors having sprung from one stock obtains, and it seems probable that ancestral shares, though not strictly adhered to, had some effect in apportioning to each man the area he should cultivate. These tenures are, therefore, the natural growth of the political and social instinct of the communities acting more or less with the laws of inheritance. In some cases, however, this theory must be further supplemented. In some villages, as in Mit and in Pachahra of Noh Jhil, at the last settlement shares were recorded on ploughs, the village being taken as consisting of a certain number of ploughs, each plough being subdivided into two bullocks, and each bullock into four legs. Similarly in others the revenue has been up to now paid on a certain number of wells. Thus in one village, Seopatti of Noh Jhil, the number of these was assumed to be 36; to each well were four runs, to each run four bullocks, and to each bullock four legs. Thus it would appear that the existing tenures have grown up to a great extent as I have described, but that in some cases (and it does not seem rash to assume that these were the most backward communities) persons who benefited the estate either by digging a well or bringing an extra plough to the cultivation could claim a definite share in it. As a living custom, there is no trace of this except in the matter of irrigation in the north-west corner of Muttra and the south-west of Chháta. Here the water is far from the surface and irrigation consequently difficult; the cultivators, therefore, whose fields adjoin a well from which they have a right to irrigate, club their fields that require irrigation together every year and irrigate in common; but their share in the resulting harvest and their responsibility for the rent does not rest on the area they bring to the common stock or on the quality of the land, but on the number of bullocks they supply to the working of the well.

In the record of rights of the settlement just completed some of the peculiarities of these tenures have disappeared, and as time goes on and the future of the village communities. land increases in value and living becomes harder through the greater subdivision of property, the definition of individual rights will become sharper and the spirit of concession weaker, and more and more of them will gradually go. In some minor respects they are not an unmixed good: occasionally they allow a few strong to over-ride the many weak, but the benefits arising from them far outweigh the disadvantages. For the system, on which alone they are possible, fosters a manly spirit, as it requires an instinct of self-government and a willingness to accommodate disputes and differences by mutual concession. Any one who knows the Kosi and Noh Jhil Játs must admit the advantages of a polity under which they have grown up. The system of revenue-rates, which prevents any but the actual cultivator deriving any profit from the land, is the keystone of the tenure, as it excludes from the sharers all except those who look to the actual cultivation of the land for their profit. When this safeguard is removed, the admission into the community of an intriguing Baniya or other similar person becomes possible and is at once ruinous to the tenure. By taking advantage of the elasticity of custom he can gain positions which the rigidity of the law will enable him to retain.

In his letter to the Commissioner of the division, No. 165, dated 10th December, 1851, Mr. Alexander thus describes the method of recording the rights of cultivators adopted by him at the revision of records of this district then proceeding:—

Changes in size of cultivating holdings and in status of cultivators since the revision of records.

“The cultivators are distinguished into the two classes of hereditary and non-hereditary, maurúsi and ghair-maurúsi, which division includes those having right of occupancy and the tenants-at-will. But in regard to cultivators the record is merely of the existing state of possession and liability, and the conditions to confer a future right of occupancy have not been entered. The regulations of Government are silent as to the particular term or condition or prescription which confers a right of occupancy, and during the progress of the operations in this district, the question of how a future right of occupancy might be gained by a cultivator or conceded by the proprietor has not been mooted.

"I believe the mode of registering cultivators under either of the heads of *maurúsi* or *ghair-maurúsi* is thoroughly known to the cultivating population, and that most if not all who claim to be recognized as the former are not backward to assert their claim if it be not at once allowed by the proprietor and measuring *amín* at the time of measurement. Decision on these claims has not generally been difficult, for though the regulations of Government do not give any rule or standard by which to fix the right of occupancy, yet I have found the proprietors in general ready after brief argument to accede to the demands of a cultivator who has cultivated for any lengthened term the same fields on fixed rates. On some few occasions reference to a *panchayat* has been necessary. What this item must be is again uncertain, but I have adopted twelve years, and when I have found that a cultivator has cultivated above that time, my decision is in his favour as having secured a right of occupancy, and if he claim it I am generally able to persuade the proprietor to allow it.

"My practice in this question seems consonant with the spirit of paragraph 130 of Directions to Settlement Officers.

"The proportion of *maurúsi* cultivators to the *ghair-maurúsi* is small in this district, as both in the perfect and imperfect *pattidari* tenures the cultivation is mostly in the hands of proprietary cultivators. In many of this class in which the revenue of the *patti* is raised by a *bachh*, cultivators are introduced and have a right of occupancy so long as they pay the *bachh*.

"Besides the entry in the *khlasra* and *khatiauni* the proprietors bind themselves in the *khewat*\* record in regard to the cultivators entered as hereditary, both as to their own rights in collecting the rent and to the privileges which the right of occupancy confers on the cultivator. These last vary in different villages; in some, the cultivator can plant and dispose of the trees in his holding, in others this privilege is reserved to the proprietor; in some the right is transferable as well as heritable, in others, transfer is not allowed.

"If it is the opinion of the Board that in every village record should be made of what shall in future confer right of occupancy to the cultivator, supplemental proceedings can be instituted to decide this point and enter a record of it; but when it is taken into consideration that there is in reality no fixed standard, that, in adjusting claims now brought forward upon the record of present occupancy, regard is as much paid to the past service of the cultivator and the good faith he has kept with the proprietor as to his having simply served his time of cultivation, the propriety seems to me questionable of binding the proprietor by previous promise to give a right of occupancy to all cultivators who may perform conditions to be now settled. I do not think, generally, that such provision would conduce to the cultivator's benefit; for, unless the market for labour was very scarce, the interest of the proprietors would be to defeat the cultivator making good his claim, which it would not be difficult for him if so inclined to do.

"As regards abatement and enhancement of rent in those villages in which the rates are customary and almost invariable, or *jinswar* according to products, or *chákhi kháki* according to irrigation, those rates are recorded in both the *khatiauni* and *khewat*\* as the limit of the *zamíndar's* demand. In others after the specification of the limit of the proprietor's demand (when this is *bilmukta* or fixed rent) from hereditary cultivators, the *khewat*\* states that the proprietor will collect from the non-hereditary according to the rate or demand detailed in the *khatiauni*, that the demand of one year will continue to the next unless the proprietor gives notice by the month of *Jeth* of the year preceding the year of new demand, or unless the cultivator in that month resign his occupancy or demand to obtain an abatement."

From this it follows that the method then adopted varies but little from that now enforced by the law; the only difference is that whereas the cultivator can now claim after twelve years' continuous holding (with certain minor exceptions) to be recorded as having a right of occupancy, he could not then claim it as a right under the

\* *Wajib-ul-arz* ?



law, but it was generally admitted as a custom that he might, provided that he had in other matters kept faith with the proprietor. The two, however, are sufficiently approximate to render a comparison of their results interesting. In the following statements the Mât tahsil on the one side is excluded as the old records have most of them been destroyed in the mutiny, and the Kosi on the other as the proportion of sîr is so large and the general status has been comparatively so little modified. Taking the other parganas, we find as follows :—

*Trans-Jumna.*

Kind of holding.	Revision.			Now.		
	Number of holders.	Area held.	Average holding.	Number of holders.	Area held.	Average holding.
		Acres.	Acres.		Acres.	Acres.
Sîr ... ..	7,443	71,158	9.5	7,369	58,980	8.0
Resident tenants with right of occupancy ... ..	3,067	24,747	8.1	7,467	59,018	7.9
Non-resident tenants with right of occupancy ... ..	439	3,581	8.1	2,196	13,339	6.1
Resident tenants-at-will ... ..	7,548	79,455	10.5	7,538	62,264	8.2
Non-resident tenants-at-will ... ..	2,776	23,490	8.4	2,281	17,705	7.8
Rent-free ... ..	1,422	1,848	1.3	2,120	2,120	1.0
Total ... ..	22,695	204,279	9.0	28,971	213,376	7.4

*Cis-Jumna.*

Kind of holding.	Revision.			Now.		
	Number of holders.	Area held.	Average holding.	Number of holders.	Area held.	Average holding.
		Acres.	Acres.		Acres.	Acres.
Sîr ... ..	8,638	84,694	9.8	9,896	77,501	7.8
Resident tenants with right of occupancy ... ..	7,192	50,806	7.0	13,080	76,210	5.8
Non-resident tenants with right of occupancy ... ..	263	2,326	8.8	3,171	14,849	4.7
Resident tenants-at-will ... ..	14,091	72,516	5.1	8,786	53,003	6.0
Non-resident tenants-at-will ... ..	4,557	18,784	4.1	3,466	14,342	4.1
Rent-free ... ..	1,000	2,985	2.9	1,330	2,752	2.1
Total ... ..	35,741	232,110	6.5	39,729	238,757	6.0

Thus the average holding has decreased in size by 18 per cent. on the east of the river and by about 8 per cent. on the west. In the former both the relative number of cultivating proprietors and the area they cultivate has decreased, while in the latter the relative number has remained exactly stationary, while the relative area held has slightly decreased—that is, each proprietor cultivates a smaller area proportionately than he did formerly. But the most important fact brought out by the statement is the very large increase in the body of cultivators having right of occupancy in the land at the expense of all the other classes; they have in fact more than doubled in number. Thus abstracting the statement, we find :—

Kind of holding.	TRANS-JUMNA.		CIS-JUMNA.	
	Revision.	Now.	Revision.	Now.
	Proportion of holders.	Proportion of holders.	Proportion of holders.	Proportion of holders.
Sîr ... ..	39.8	25.4	24.2	24.9
Tenants with rights of occupancy ... ..	15.4	33.4	20.8	40.9
Tenants-at-will ... ..	45.5	33.9	52.2	30.8
Rent-free ... ..	6.3	7.3	2.8	3.4

It is natural that non-resident tenants of all classes should also have increased in numbers.

The number of ploughs, plough cattle, and the cultivated area per plough (including muáfi) on the both sides of the river is as follows :—

		Ploughs.	Plough cattle.	Cultivated area.		Average area per plough.
				Acres.	Acres.	
Trans-Jumna	...	26,352	53,601	341,586	12.9	
Trans-Jumna	...	23,491	48,902	369,577	15.7	

There is a startling difference, therefore, between the plough area and the average cultivating holding, showing how large a proportion of the cultivators have to depend either on borrowing or else on hiring. Thus on the left bank there are, roughly, two ploughs to every three cultivators, while on the right bank there is not much more than one to every three. Very few of the village servants have any ploughs or cattle of their own, but depend on their neighbours and patrons to help them through the season.

There are, besides, in the district 254,628 cattle other than plough cattle, 6,300 sheep, &c. The milch-cows of Kosi and the north of Chhāta are famous for a considerable distance round, the pasturage both in the *rakhiyas* of those parganas and in the large fallow area of the Noh Jhil being excellent. Sheep and goats are chiefly pastured among the Jumna ravines. Horses are bred to some extent all over the district, but most largely in the Māt tahsíl, where there are some Government stallions kept.

It is an important question to discuss what are the signs of improvement in the physical condition of the people—that is, how far the general peace we have imposed, the justice we dispense, the improvements we have made in communications and the introduction of canals and of new industries, have outweighed the increased burdens of our taxes, the growth of population now no longer kept down by war and only in a modified way by epidemics and famine, and the consequently greater subdivision of property and greater pressure on the land. We know that the absolute amount of capital has increased, but the important point is, how far has the increase been general and how far confined to a few hands. The question is a wide one and reaches beyond the scope of a settlement report, while for many of the necessary subjects of enquiry statistics are absolutely wanting; but in so agricultural a district the effects and history of famines are of great value as a test. This district is in fact, especially on the west, peculiarly sensitive to famines; the depth to the water, the character of the water, which gets saltier as the subsoil dries the large dry area, the character of the soil, rich but easily caking—all tend to the same result, while the position of the district on the edge of the Rajputana States causes on the slightest appearance of distress a rapid influx of famine-stricken paupers. There are four famines and scarcities since the introduction of our rule of which we have more or less imperfect statistics. The first was in 1813-14, before the administration had as yet settled down, while the people, not recovered from the disorders that preceded our conquest, were harrassed by the severity of our earlier settlements. The rains of 1812 failed, there was no autumn harvest, and the spring crop was indifferent, while the rains of 1813 were late and partial. Mr. Boddam, writing fifteen years later, says of this famine: "During these years almost half the landed property in zila Agra changed owners whole villages were sold for the trifling sum of Rs. 80 or Rs 100, and numerous cultivators deserted the soil which would no longer repay the expense and trouble of cultivation." The distress was consequently very sharp and severe. Sahar is specially quoted as having suffered terribly. The quoted prices of grain in 1813 are—

				Average.	Lowest price.
				Seers.	Seers.
Wheat ...	...	...	...	22	17
Barley ...	...	...	...	31½	17
Gram ...	...	...	...	23	17½

The rise in prices generally was from 35 to 40 per cent. over the average of preceding and succeeding years, while the prices that then caused this great distress were but little over those now paid in average years. Twenty years later, the succession of bad seasons from 1832 culminated in the entire failure of rains in 1837 and the great famine of 1837-38. Of the price of grain during this time we have few details, but we are told that grain, without specifying the kind, went up to 12 seers the rupee, the harvest price of wheat reaching to 14 seers. This famine cannot be compared with that of 1813, for not only did the prices run far higher, but the distress was far greater. Coming, however, to the famine of 1860-61, which came before the effects of the great mutiny had passed away, we find that grain fell in price to 9 seers to the rupee—that is, 25 per cent. below what it was 23 years before. In spite of this the Commissioner of the Agra division, Mr. Harvey, who had been in the division during the previous famine, writing of this district in February, 1860, could say: "I have no hesitation in saying that nothing at all comparable to the previous suffering and distress felt in those years (1837-38) exists at present." All such general estimates are of course vague and must be taken with a certain reservation, but at the same time the tendency of the mind is to exaggerate the calamity immediately present when weighing it against a long past distress. Eight years later, in 1868-69, prices sank to 8½ seers, but nothing that could be at all called a famine, or anything more than a severe scarcity, was felt. In this case the prices rose over 60 per cent. from what had been obtaining before. I do not propose to say anything of the scarcity of the years 1877-78; it was anomalous, inasmuch as it was brought about by the failure partially of one year's monsoon, and previously it had always been considered that no one year's failure could be enough to cause a scarcity. This change arose from a combination of circumstances which will probably be never met with again. The previous failure of the harvests in other provinces had caused a heavy drain on the stocks in the North-West, and the low prices of the spring of 1877 combined with the war in Europe had vastly stimulated export. In the end such export must benefit the cultivators and landlords, but in this particular case it had not been in action long enough to reach them; they had to dispose of their produce at the very low rates obtaining at the harvest, and the grain-dealers alone benefited by the stimulated export; so that when the failure of crops came here, there were no stocks to fall back on, and what would in a few years have materially improved the position of the bulk of the people acted to their detriment. Leaving, therefore, the year 1877-78 entirely out of account, we may compare the scarcities of 1813-14 and 1868-69. The distress of the former period was decidedly sharper than of the latter, when we do not hear of people selling their wives and children for a single meal, and it was caused by a rise of from under 40 per cent. in the prices as against one of over 60 per cent. in the latter case. This argument may of course be easily carried too far. The standards by which we can measure the relative distress are not very satisfactory. The superior perfection of famine administration has had something to say to the matter, as has also the fall in the value of money. But the quantity of grain necessary to sustain life is a constant quantity; and if a rise of over 60 per cent. in the price of the necessities of life does not cause now as much distress as a rise of 40 per cent. 60 years ago, then in ordinary years there must be a larger margin left for saving or for the accessories of living. How far the general food of the people has improved we have no direct means of estimating; but what we do know is that the best crops are grown on irrigated land only, and that the proportion which irrigated land bears to dry has been steadily increasing in spite of the breaking up of the presumably worse fallow land, and that therefore better crops have been grown in larger proportion.\* From this it does not seem a rash deduction to assume

\* The proportional increase during the settlement has been—

Per cent.			Per cent.		
Sahpau	...	18	Muttra	...	15
Sadabad	...	16	Chhāta	...	11
Māt	...	21	Koat	...	8

In Mahāban the last settlement statistics are not available.

that as the land has now to support a denser population; the better grains are more largely consumed by the bulk of the people. In their houses and in their clothes (except as far as the latter have been affected by the use of English cloth) the people are probably but very little changed. There is no industry in the district except some weaving of country cloth, which has been rather injured than otherwise by the trade in English manufactures. In the towns the people are chiefly either grain-dealers or landlords or money-lenders, who are dependant on the agricultural population, and whose prosperity varies with theirs; or else they are priests and pandas who live on the offerings of the faithful or on the gifts of pilgrims whom they accompany on the tour. To these latter the improved communications with the increased influx of strangers is an unmixed advantage.

There is another way of stating this same problem. For pargana Sádabad we have on the whole the fullest statistics, and we may compare the condition of a cultivating family growing only grain crops there now with a similar family at the revision of records now nearly 30 years ago. The size of a family may be taken as the same in both cases—namely 4·6, requiring 23 maunds of grain to support them. We know that the average holding has decreased from 10·7 acres then to 8·9 acres now; rent has risen over 32 per cent. from Rs. 4·3 then to Rs. 5·7 since enhancement; irrigation has increased from 73 per cent. of the cultivation to 88 per cent.; while prices have increased 50 per cent. from an average (harvest) price of 48 seers for the rupee to an average (harvest) price of 32 seers. If  $x$  equal the number of maunds of grain produced in an acre of unirrigated land, then  $2x$  will equal the produce of the irrigated acre; and the produce of the holding of a cultivating family then and now would be—

$$\text{At Revision} \dots 2x \frac{10.7 \times 73}{100} + x \frac{30.7 \times 27}{100} = 18.51x \text{ maunds.}$$

$$\text{Now} \dots 2x \frac{8.9 \times 88}{100} + x \frac{8.9 \times 12}{100} \times 16.73x \text{ maunds.}$$

The value of the former at 48 seers for the rupee, and the latter at 32 seers, would, after allowing for the 23 maunds required for food, be—

$$\text{At revision} \dots \text{Rs. } \frac{18.51x - 23}{1.2}$$

$$\text{Now} \dots \text{Rs. } \frac{16.73x - 23}{.8}$$

The value of the surplus produce now must therefore be always more than the value at the revision if  $x$ , or the produce per acre, is over 2 maunds. Next, allowing for the rent, which was Rs. 46·01 at the revision and is Rs. 50·73 now, the balance after paying for food and rent then and now would be —

$$\text{At revision} \dots \text{Rs. } \frac{18.51x - 23}{1.2} - \text{Rs. } 46.01$$

$$\text{Now} \dots \text{Rs. } \frac{16.73x - 23}{.8} - \text{Rs. } 50.73$$

And the second would always be greater than the first, if  $x$  or the produce per acre is over  $2\frac{1}{2}$  maunds, and in the second equation there would be profit if  $x$  were more than four maunds. As the ordinary value of  $x$  may be taken as at the least seven maunds, a cultivating family is much better off now than it was 30 years ago. This statement of the case is, however, only intended to be general, for social phenomena do not so easily lend themselves to expression in algebraical formulæ. Thus there is nothing in this to show whether the money-lender takes now a larger share of the cultivator's profits than he formerly did, and for this branch of the enquiry there are no definite statistics; but later on, in the analysis of the rise of prices, I hope to show that the tendency is for the cultivator to more and more get his share in that rise. In this statement of the case I have said nothing of the increased fixity of tenure which I have shown to exist.

Effect of fixity of tenure  
on condition of cultivators

Turning, then, to the question of this fixity of tenure as affecting the condition of the cultivating class, I can, I think, adopt no better form for illustrating it than that used by Mr. Elliott in Fatehgarh. I have taken the seven villages in the Muttra tahsil and the 10 in

the Mát tahsil named in the margin, and traced down the history of the right of occupancy tenants and tenants-at-will of the revision of records 30 years ago to the present day. The result is—

<i>Muttra.</i>	
1. Purna.	5. Nabipur.
2. Janun.	6. Pura.
3. Ganeshra.	7. Penth.
4. Atas.	
<i>Mát.</i>	
1. Nasithi.	6. Badanpur.
2. Bhadrban.	7. Dadisra.
3. Jaiswan.	8. Uhawa.
4. Hauli Guzar.	9. Karahri.
5. Jarara.	10. Bhalai.

#### *I.—Right of occupancy tenants.*

	<i>Muttra.</i>				<i>Mát.</i>			
	Number then.	Area then.	Number now.	Area now.	Number then.	Area then.	Number now.	Area now.
(a.) Represented at the revision and still represented.	217	Acres. 1,384	257	Acres. 1,707	103	Acres. 1,406	180	Acres. 1,560
(b.) Represented at the revision, but since disappeared.	41	362	...	...	53	646	...	...
(c.) Who hold now, but have acquired land and rights since the revision.	...	...	727	2,834	...	...	360	1,920

#### *II.—Tenants-at-will.*

(a.) Represented at the revision and still represented.	130	830	181	966	173	1,786	266	2,614
(b.) Represented at the revision, but since disappeared.	418	1,513	...	...	886	5,548	...	...
(c.) Who have acquired land since the revision.	...	...	669	2,331	...	...	626	4,863

Of the tenants-at-will at the revision included in head (b) of the second subdivision in Muttra, 97 men holding 393 acres, and in Mát 156 men holding 940 acres, have acquired occupancy rights. The villages taken are those which fairly represent all the classes except the village communities; these were purposely excluded, as any results from such estates where owners and tenants differ but little in standing would tend to obscure results obtained from the remainder. The very small number of right of occupancy tenants who have disappeared is very striking; these men did not hold much less on the average than their neighbours, and the disappearance of this small number may well be referred to what, in distinction to imposed causes, may be termed natural ones, as the lapse of the rights of men dying without heirs. Another striking point is the almost entire disappearance of all the tenants with small holdings. It is in fact these men who hold just a few fields and eke out their daily wages with the little grain they can grow, on whom the calamity of a scarcity or famine falls most severely; with no capital saved up, and depending on their neighbours even for cattle to plough their land, they are entirely at the mercy of the seasons, and directly the first signs of an approaching failure of the rains are apparent, they emigrate to wherever rumour may say the monsoon is more propitious, or else wander off to pick up what they can by begging. But below the cultivating class there is another which the very best statistics do not reach, and I have no means of stating the alteration wrought in the condition of the daily labourer by the changes whose effect on the life of the cultivators I have been trying to estimate.

The total number of males included in the census of 1872 is 393,854, of whom 11,486, or 2·9 per cent., were returned as being able to read and write. As might be expected from their superior social position in this district, education is much more common among the Hindús than the Muhammadans.

The total then attending school were :—

Hindûs	...	...	...	5,289
Muhammadans	...	...	...	265

The total number on the books in 1878, including girls, was 5,997. They were distributed as follows :—

Kind of school.					Number of pupils on books.	Average attendance.	Yearly cost.
							Rs.
Zila	...	...	...	...	223	216	7,708
Branch	...	...	...	...	169	147	986
Tahsil	...	...	...	...	564	487	2,217
Girls'	...	...	...	...	149	100	363
Halkabandi	...	...	...	...	4,676	3,811	13,119
Municipal	...	...	...	...	125	91	264
Anglo-vernacular	...	...	...	...	91	80	1,049
Total					5,997	4,908	25,706

I cannot do better than quote a report of Mr. Growse in 1873-74 as showing the educational position and prospects of the district :—

“ The present failure (in examination) does not alter the opinion as expressed in my report, that the halkabandi schools are steadily improving. The progress no doubt is very gradual, and until the whole character of the district is radically changed will never, I fear, advance very far. In my first report for the year 1870-71 I expressed the surprise which I felt on finding the most classic land of Hinduism such a veritable Bœotia. A large proportion of the village schools had (so far as I could judge) a purely nominal existence, and it was only in the two commonplace and uncharacteristic parganas of Sadabad and Jalesar that they were at all on a par with the neighbouring districts. The reason is not far to seek ; in all holy places secular learning is somewhat at a discount, and though Benares is esteemed equally sacred, the reputation for sanctity attaches only to the city itself, whereas five out of the six Muttra parganas all go to make up the one great *tirath* of the Brajmandal. Again, the followers of Siva at Benares recognize the religious merit of theological study, while the Vaishnavis of Muttra rely entirely on simple and (it may be) unintelligent *bhakti* or faith ; and as I have shown at length in my District Memoir, the one sect which especially took birth here is based on the degrading principle that sensual enjoyment is the highest form of divine service. Thus the most influential leaders of the people make no pretension to advanced scholarship, while the swarms of priests and devotees of a lower class who are supported by the endowments of the innumerable temples are as utterly illiterate as the mendicant orders of all religions think it no shame to be. In my report, though I did not feel especially concerned to dwell upon the fact, I incidentally refer to the cicerones of Brindaban and the Chaubes of Muttra as most hopeless classes to deal with. When we get to the more remote parts of the district, such as the old pargana of Noh Jhil, the blight of superstition has a less deadening influence ; but we are confronted by the new difficulty arising from the peculiarities of race, for there the population are all but exclusively Jâts, who, with many fine points in their character, have always been notorious for their aversion to all sedentary occupations. Thus, as long as Muttra continues to be itself its educational standard, it may be feared will never be a high one.”

## CHAPTER III.

### FISCAL HISTORY.

**General review**—(I) Fiscal history of Trans-Jumna parganas to conclusion of last settlement: (a) first triennial settlement; (b) second triennial settlement; (c) quartennial settlement; (d) quinquennial settlement; (e) settlement under Regulation VII of 1822; (f) settlements under Regulation IX. of 1833; (g) villages received from Aligarh in 1840—(II.) Fiscal history of the Cis-Jumna parganas to the conclusion of the last settlement: (a) first triennial settlement; (b) second triennial; (c) quartennial settlement; (d) quinquennial settlement; (e) Gobardhan; (f) settlements under Regulation VII. of 1822; (g) settlement under Regulation IX. of 1833—(III.) Fiscal history of the expired settlement: (a) famine of 1837-38; (b) revision of the assessment of the Mahāban talūkas; (c) revision of the Koal tahsil; (d) subsequent history of the district; (e) sales for arrears of revenue during the period of settlement; (f) changes in the demand during the currency of the settlement—(IV.) Transfers.

**General review.** THE parganas of this district originally formed part of the conquered provinces which we obtained from Scindhia by the treaty of Anjengaum dated 30th December, 1803. In the schedule of that treaty they are given as follows:—

				<i>Value yearly.</i>
				Rs.
General Perron's jāgir	...	{	Noh Jhīl	1,15,000
			Sonsa	20,000
General De Boigne's jāgir	...	{	Māt	1,41,500
			Sādabad	2,02,088
			Sahpau	40,000
			Mahāban	21,424
Under Ambaji Ingliā	...	...	Muttra, and customs collected in Noh Jhīl	55,000
Zamīndari of Ranjīt Singh in the Duab	...	...	Husainganj and Panigaon	6,000
Ditto	west of the Jumna	...	...	13,33,370
Total				19,24,382

In Ranjīt Singh's zamīndari much of the present territory of Bhartpur was included, and this difference of boundary added to the rough estimate of value which was always made on such occasions, and to the doubt as to the value of the rupee in which calculations were made renders any comparison of the old and new revenue impossible. The history of the Cis-Jumna parganas until their final inclusion in the Agra district has already been given. The Trans-Jumna parganas were by Regulation IX. of 1804 included in the Aligarh district. From this time until the formation of the Muttra district some 30 years later the successive settlements were made by different officers with different leanings, and to this much of the difference between the two tracts in their proprietary peculiarities may be referred. For, while the makers of the early Aligarh settlements leaned to a talūkdari settlement, the Agra settlements were made with the cultivating bodies. The arrangements for the first year were merely provisional, as it was some time before the English possession was real as well as nominal. On 11th October, 1804, the Commander-in-Chief issued a proclamation laying down how the arrangements for 1212 fasli (June, 1804 to May, 1805) were to be made, and these rules were incorporated in and enlarged by Regulation IX. of 1805. This regulation ordered that there should be a triennial settlement for 1213 to 1215 (June, 1805 to May, 1808), another triennial settlement from 1216 to 1218 (June, 1808 to May, 1811), then a quartennial settlement from 1219 to 1222 (June, 1811 to May, 1815), after which a permanent settlement was to be made for all lands in a sufficiently advanced state to allow of it. The principles to be adopted are also laid down, but, curiously enough, the principle on which the first assessment was to be based is nowhere given; apparently it is meant that 10 per cent. of the estimated assets should be allowed as profit to the proprietor. Engagements were to be taken for the pure revenue only and only from persons in actual possession; all claimants out of possession were to go to the civil court. Progressive assessments were to be given where necessary, either from the calamity of the season or other good and sufficient cause. Non-

engaging zamindars were to receive nankar at the usual rate, not exceeding 10 per cent. on the jama; all such cases were to be reported to the Board of Commissioners, as were also all cases in which zamindars were excluded from engagement for bad character or other good reason. Where possible, independent zamindars were to be settled with separately from talukas. Security to one-fourth of the demand was to be taken from all zamindars. Where there were no proprietors the village was to be held direct; tenants paying Government five-eighths of the produce where the land was fully cultivated, one-fourth in new waste, and one-eighth in fallow land, brought under cultivation. At the end of this triennial settlement the next settlement was to be made for three years; from the full proceeds of the village nankar at the usual rate was to be deducted, and the new revenue was to be the old revenue plus two-thirds of the difference between it and the proceeds calculated with the above deduction. In the quinquennial settlement the same procedure was to be adopted, only three-fourths of difference was to be taken. But long before 1815 a change of procedure was adopted. By Regulation X. of 1807 two Commissioners were appointed who were to superintend the second triennial settlement and also the introduction of the permanent settlement, which was to be, subject to the consent of the Board of Directors in England, the jama of the last year of the quinquennial settlement. Before the end of the time fixed, however, the Court of Directors had signified their disapproval, and Regulation X. of 1812 was passed, which authorized the Commissioners to enquire into and report on what estates were in a sufficiently advanced state of cultivation to receive a permanent settlement; in these, subject to the confirmation of the Court of Directors, a permanent settlement would be concluded; to the remainder a settlement for three or five years would be given. A new settlement was in the meantime made up to the end of 1227 (May, 1820). The enquiries of the commission effectually shelved for the time the question of a permanent settlement, and the current arrangements were by Regulation IX. of 1818 continued for five years more to the end of 1232 (May, 1825); and by Regulation IX. of 1824 it was further continued to 1237 (May, 1830), or until a new settlement was made by the Collector under Regulation VII. of 1822. Those made in this district under this regulation for Sonai and Rāya were subsequently revised in 1844, while in the rest of the district the settlements which have just expired were made under that regulation for part of Mahāban, Sādabad, and four villages of Māt; the remainder of the district was either settled under, or the settlement revised under Regulation IX. of 1833. The various settlements have therefore been—

1st triennial	...	...	...	1805-1808.
2nd ditto	...	...	...	1808-1811 (continued to 1815).
3rd quinquennial	...	...	...	1815-1820.

This settlement was continued by various enactments to the commencement of the expired settlements, or of those previously made under Regulation VII. of 1822.

In the history of the various settlements which I shall now give, the gradual growth of the revenue administration may be clearly traced. The earlier ones professed to no scientific accuracy; the assets assumed were roughly the highest the zamindars would agree to give; while in no year was the full sum of the demand collected. As the machinery of the administration improved, the collections became more regular, and the gradual accumulation of experience assisted the Settlement Officer. The work continued, however, to be by rule of thumb, and the elaborate statements required by Regulation VII. of 1822 did not alter the procedure. It is in the work of Mr. W. H. Tyler, who made the last settlement of the district under Regulation IX. of 1833, that the link connecting this stage with the later development of settlement operations such as have obtained at this settlement may be traced. In his earlier assessment in the Trans-Jumna parganas he adopted the plan of a village settlement, each village being assessed on its own merits; but in his latest reports, as Māt, he intimates his doubts if this were the best method: consequently in the settlement of the Cis-Jumna parganas, which he took up later, he adopted classification of the villages and rudimentary pargana soil rates. In his latest work, however, in Matira and



the revision of the settlement of the Mahāban talūkas, he so far differentiated his soils that he used twelve or fifteen different rates, and, except in the soils adopted and the method of obtaining rates, there is but little to distinguish it from the work at this settlement.

*I.—Fiscal history of Trans-Jumna parganas to conclusion of last settlement.*

The 1st triennial settlement of the Trans-Jumna parganas was made by Mr. Russell, and in all of them talūkdars were admitted to engagement either as talūkdars or as farmers. The following is the list :—

(a) 1st triennial settlement.

Talukdar.	How held.	Pargana.	Jama.
			Rs. a. p.
Daya Ram of Hathras	Farm	Mahaban	99,275 0 0
		Mat	40,707 0 0
		Sonai	23,843 0 0
		Raya	16,517 0 0
		Sahpau	25,161 0 0
		Chura Hansi	251 0 0
		Bharnagar	368 0 0
		Total	2,05,923 0 0
Raja Bhagwant Singh of Mursan,	Taluka	Taluka Ar Laskarpur	12,311 12 0
		Villages of Sadabad	10,094 13 0
	Farm	Rest of Sadabad	1,35,750 0 0
		Sonkh and Madim	7,445 0 0
		Dunetiya	2,229 0 0
			1,68,830 0 0
Ranmast Khan	Do.	Noh Jhil	49,090 0 0

The farm to Ranmast Khan was especially ordered as a conciliation to a powerful rebel ; the arrangements in the other tahsils are thus justified by Mr. Russell in reporting his arrangements to the Board of Revenue on 6th July, 1806 :—

“ In the column specifying the names of the farmers the Board will observe that Raja Daya Ram holds the principal farms in the district. The parganas which compose them, with the exception of Khandoli, were placed under his superintendence and control by His Excellency the Right Hon’ble the Commander-in-Chief immediately upon the conquest of these provinces, and they were continued to him by the late Acting Collector of the Ferozabad Division in that year with the approbation of His Lordship. In the last year the same arrangement was directed by His Lordship, and the pargana of Khandoli was added to his farm by the Acting Collector with the concurrence of His Lordship, as he had in vain attempted to realize the collections or to preserve tranquillity and good order by the appointment of a tahsildar. From the same cause and under similar circumstances the pargana of Sādabad was also given in farm to Raja Bhagwant Singh in that year, as the refractory and violent spirit of the zamindars set the authority of the tahsildar at defiance.

“ At the time that this division was annexed to the zila of Aligarh and entrusted to my charge His Lordship was pleased to recommend both these talūkdars to my favourable attention ; and considerations of policy dictated my conduct in the settlement which I concluded with them. In regard to their talūkas no difficulty of course could occur, and the only question was, upon what terms I should settle with them for the lands which they held in farm. The continuance of them upon the farming system certainly involved many objections, and yet I was not aware of the practicability of forming any other arrangement. There were evidently only two modes by which the settlement of these parganas could be formed—either by continuing them to these talūkdars, or by withdrawing them entirely from their management, and by appointing tahsildars to the charge of them ; the execution of this arrangement, however, depended upon the contingency that the talūkdars were willing to relinquish the lands, and the expediency of the adoption of it even under this event became a question of consideration.

" In the first point of view I entertain great doubts whether it would have been practicable to have carried the tahsildari system into effect. After having been in possession of the parganas from the accession of the British power in these provinces, any attempt to separate them would have been calculated to have given disgust and dissatisfaction to the talúkdars, and to have excited in their minds a distrust and apprehension of the intentions of Government, and any suspicions of this nature must have been attended with the most serious consequences, at a time when the tranquillity of the Duab was an object of such importance, and that the strength of our army was directed against an invading enemy. I was aware that I had not the means of compelling them to relinquish the lands if they had manifested any disinclination to the measure; and from the influence and power which they possess, any open hostility on their part would have materially impeded the important operations and objects of the campaign. Nor could I have expected any comparative advantage from holding these parganas *amáni* under tahsildars, from the difficulty of collection owing to the habits of the landholders; the expenses of establishments would have been very heavy, and even then the punctual realization of the revenue would have been a matter of uncertainty, if not impracticable, without the constant aid of a military force which the exigencies of the time could not have supplied.

" Under these circumstances I determined upon a line of conduct which appeared to me to afford the only means of preserving the peace and tranquillity of the Duab, of conciliating the minds and affections of these two powerful talúkdars, and of securing the revenues of Government. The only question which remained was the terms upon which I should conclude the settlement, as I was sensible that the deductions on account of expenses of collections in the former arrangement were considerable, and that the tenure under which they held them was very advantageous; in attempting, however, to obtain any increase during the triennial settlement, I found so many obstacles and objections to my wishes, and such delays in the payment of the revenue upon the plea that they could not have implicit confidence until their engagements were accepted, that I was under the necessity of either acceding to their own terms, or of involving those consequences which it was my sole object and solicitude to avoid. And when, in addition to this circumstance, I considered the heavy expense which must have attended any other mode of collection, and the probable loss which would have resulted, as also the comparatively small sum which the increase would have given, and which would have been at most Rs. 25,000 annually, immediate policy and the eventual interests of Government rendered an arrangement upon any terms both expedient and necessary.

" The farm of Noh Jhil and Khair the Board are already informed to have been granted to Ranmast Khan, the son of Dundi Khan, according to the conditional offer of pardon to the latter by the Right Hon'ble Lord Lake, and any observations upon this point are unnecessary."

The first of these talúkdars to fall was Ranmast Khan. He was always but a half-subdued rebel, and his insubordination culminated in an armed attack on the village of Musmina. A warrant was issued for his apprehension, and after but two years of farm a zamindari settlement was concluded. The whole of this triennial settlement was a disastrous one for the district. In 1806, after June 15th, there was no rain up to the middle of August, while in 1807 the rains ended in July, and from that time to January not a drop fell. Three annas in the rupee reduction was allowed to the zamíndars admitted to engagement; but no similar reduction was allowed to the talúkdars and farmers, and they were left to deal as they pleased with the zamíndars under them. In spite of the unfavourable seasons Ranmast Khan collected Rs. 1,30,000 for each of the two years he held the farm, and his great extortions had so reduced the tahsil that at the zamindari settlement the sum of the revenues payable by the zamíndars was actually less than that formerly payable by the farmer. In Mahában, Sonai, Ráya, Mát, and Sahpau, too, when the zamindari settlement was introduced, we hear of the heavy exactions of the farmer, and that "the zamíndars complained

greatly of his oppression and manifested much joy at being delivered from his control," while the Sádabad zamíndars "universally expressed their satisfaction at being emancipated from the power of Bhagwant Singh." Another great source of confusion was the uncertainty of the value of money. There were no less than four rupees of different values coined in this district and the neighbourhood—those of Muttra, Bindraban, Dig, and Háthras, while Regulation III. of 1806 enumerates fifty kinds as in use in these provinces. On each there was a rate of discount according to the market rate of the day, and it was found necessary to pass Regulation VII. of 1807 to legalize payments in any kind of coin at the current rate of exchange.

The removal of Daya Ram and Bhagwant Singh from the farms of the tahsils they held was not, however, governed by any considerations of the welfare of the zamíndars under them. The reasons for giving the farms in the first place were political ones of a temporary nature, and as time went on and the country settled down, the evils of two powerful and turbulent talúkdars setting at defiance the power of the Government became more and more glaring. Even as a financial measure the plan was not a success, for the old records are filled with their claims (chiefly Daya Ram's) for compensation for the abolition of transit dues (which they still privately evied), compensation for abolition of the Háthras mint, claims to certain percentages on payments made, &c. The two Commissioners appointed by Regulation X. of 1807 reached Aligarh in October, 1808, and their letter of December 22nd, 1808 contains their proposals as to the treatment of the great farmers. The removal of these had been previously decided on by Government, and to the Commissioners was only left the determination of the best method of carrying it out. In the arrangements which followed on the farms being taken away Daya Ram was finally excluded from the parganas now forming part of this district, while the talúkdari rights in Sonkh, Madim, and Dunetiya were part of the compensation given to Bhagwant Singh. The rights of the zamíndars were in this case openly and flagrantly set aside, for in the 11th paragraph of their letter the Board say that Bhagwant Singh's rights in these estates were only those of a farmer. They were not, however, without some compunctions in respect to the injustice they were committing; their actual words are worth quoting:—"In the case of Bhagwant Singh, on the contrary, claims have been set up to the lands of Sonkh, Madim, and Dunetiya, denominated by him part of his ancient zamindari. From the information which has come before us he appears clearly to have *no proprietary right* in either of them, and to have possessed them under the Mahratta Government in no other capacity than as a farmer. His first acquisition of Sonkh and Madim was in 1202, and of Dunetiya in 1208. *Under existing circumstances, we should consider it inexpedient to embarrass the conclusion of the settlement with them by too scrupulous an enquiry into the contested claims.* At the same time we are of opinion that some security should be provided for the rights of the claimants, and an opening left for a judicial decision of them whenever the death of the present heads of these families and a longer confirmation of the British Government shall have tended to introduce a habit of good order and of submission to the established authorities. Considering the extensive sacrifice of revenue on the part of Government in abiding by the ostensible jama of these talúkas during the former administration, it may be advisable to reserve on opportunity of bringing forward hereafter the claims of Government by affixing a limit to the duration of the settlement now to be concluded with them." In reply, the Governor-General, on the 27th January, 1809, passed these proposals, and warmly acknowledged the zeal and ability of the Commissioners in so largely increasing the revenue from the parganas removed from the farmers. Twenty-six years later, those of the zamíndars who still existed in Sonkh, Madim, and Dunetiya were admitted to engagement in the inferior position of mukaddams and saddled with the payment of heavy malikana to the Mursan Rája; this sum is still yearly paid from those estates in which the Rája has not acquired the full proprietary rights.

While these arrangements were in progress half the first year of the second triennial settlement had slipped away, and Mr. Trant, then Acting Collector of Aligarh, had been busy making his arrangements for a

village settlement; his reports are dated for Mahában, December 1st, 1808; Sahpau and Sádabad, 20th December; Mát, Ráya, and Sonai, 22nd December. This settlement was the most disastrous one that has been made in this district. I therefore quote from Mr. Trant's reports in full to show his method of procedure and the condition of these parganas at that time. In his Mahában report he says:—

“ The proprietors have been duly informed that the jama of the last year of this settlement, if approved by Government, will be made permanent, provided the measure meet the approbation of the Hon'ble Court of Directors, and a clause to this effect has been inserted in their kabuliyats.

“ In adjusting the jama, I have been regulated by the average payments of the malguzars to the late farmer, Daya Ram, during the three years 1213, 1214, and 1215 fasli, and by the average payments of four years commencing with 1207 and ending with 1210 fasli; these accounts were again checked by private information of the actual existing assets and by the best intelligence procurable of the rakba and capability of each mahal.

“ The present state of the pargana has compelled me to adopt a rasadi jama, for the drought of the last and present year added to the heavy exactions of the late farmer have so reduced the means of the malguzars that the jama they are now able to pay falls far short of the amount which Government is entitled to expect from the lands, with reference to their capability and actual produce under more favourable circumstances. The deficiency of the year 1216 has been amply made up by the increased jama of 1218, and had a longer period than three years been allowed for the operation of such an arrangement, a further augmentation might have been demanded. The settlement in the last year exhibits an increase on the jama paid by the late farmer of Bindraban, Rs. 99,364, including salt, or Farukhabad 45 *san* Rs. 69,790; and I believe, under the engagements now concluded, the security of the public revenue and the ease and happiness of the landed proprietors have been combined, and that a few years will restore this pargana to a prosperous and flourishing state. With a view to further relief of the malguzars I have taken upon myself to promise them an advance of takavi to an amount not exceeding 5 per cent. on the jama payable to Government, and hope for the sanction of the Board to this measure.”

And in his Sádabad report:—

“ The principles upon which this settlement has been formed are the same as those of Mahában and the other resumed farms which have been already submitted to the Board. I have assumed the average jama of the last six years, together with information collected from private sources, as the basis of the proposed jama. The lands of this pargana are generally in a good state of cultivation, but much improvement may take place under an equitable system of Government, specially when the people are assured that they are to reap the full benefit of their exertions.

“ Although the zamíndars universally expressed their satisfaction in being emancipated from the power of Bhagwant Singh, the habitual contumacy of their character rendered it impracticable for me to induce all of them to agree to the terms which I proposed, although I am satisfied that they are very reasonable; I have consequently been obliged to let several of the estates in farm. From the experience which I have had of the disposition of the zamíndars, I cannot however but apprehend that the farmers will find it very difficult to make any arrangement with them without the interference of a superior authority.

“ The jama payable by the late farmer was Farukhabad Rs. 1,35,750, and that fixed for 1218 fasli is Kaldar Rs. 2,30,042, leaving an increase of Rs. 94,292.

“ Independently of this considerable augmentation of the public revenue, the conclusion of the settlement with the village zamíndars affords a prospect of important advantage in this pargana as well as in those lately farmed by Thakurs Daya Ram and

Harkishan. A very material change in the habits of the people may be expected, for it may be said that they have hitherto known only the name of the British Government, the late farmers having been almost absolute, and their system most oppressive.

"The zamíndars have not yet been able to furnish responsible security for the performance of their engagements. I have directed the tahsildar to endeavour to expedite the measure, and a report will be submitted to the Board as soon as the bonds shall have been executed."

Separate agreements were in all cases taken for salt works, pending the bringing all such works under one Customs Department. These proposals were sanctioned by the Board on 25th April, 1809. The revenue of this settlement, together with that of Noh Jhil, reported by Mr. Elliott on 25th May, 1809, were as follows for the last year of the triennial settlement :—

	Rs.					
Mahában	...	...	...	...	...	1,51,987
Mát	...	...	...	...	...	67,641
Ráya and Sonai	...	...	...	...	...	83,500
Sahpau	...	...	...	...	...	41,008
Sádabad	...	...	...	...	...	2,30,000
Noh Jhil	...	...	...	...	...	1,11,471
Total						6,85,605

a rise of Rs. 2,64,933 on the sum payable by the farmers. The causes of the disastrous effects of this settlement are not far to seek. Mr. Trant himself allows that, as the jama of the third year was to become permanent, he was compelled to fix for that year on a revenue which, though he gave a progressive assessment for two years, still could not in so short a time be paid by the zamíndars out of improvements in cultivation ; so that the very measure of permanency of demand intended for their benefit was destructive to them. The parganas, too, were in a very impoverished state ; they had been reduced to a low condition by the marching of troops and the unrestrained plunder of armed bands for some years before we obtained the country, and since that time they had not only been delivered over to the unrestrained exactions of rapacious farmers, but had also suffered from two successive seasons of deficient rainfall. And instead of giving the country breathing time by a moderate assessment, the extortionate demands of the farmers were taken as the ground-work of the new settlement. Writing of the district in 1810 from experience gained while these settlements were being made, the Commissioners say :—

"The Acting Collector of Aligarh (Mr. Russell), in his letter of October 12th, strongly objects to the plan of a permanent settlement ; he observes that the frequent revolutions in the Government, war, the rapacity of the public officers, and the extortions of the farmers, have checked the progress of cultivation and population ; that with very few exceptions, such a settlement could not now be undertaken without a material sacrifice of the public resources, particularly in the lands held by the Ját chieftains, and that it could not be rendered equal and just. The district of Aligarh suffered severely from the drought which prevailed in the past season, and its effects were distinctly traced by us, large tracts of land which had been prepared for cultivation having failed to produce a crop."

Seven years later, reviewing this settlement, the Board of Commissioners wrote :—

"Your Lordship will observe that this settlement was in every instance at a progressive increase. This measure was adopted in the parganas of Sahpau, Ráya, Sonai, Sádabad, Mát, and Mahában, on their resumption from the talúkdars of Háthras and Mursan, with whom they had been in farm ever since the conquest, in the view of affording a temporary relief to the newly-admitted zamíndars, and at the same time of retaining ultimately the assessment which these talúkdars were understood to have realized from them. The object failed in many of these parganas. Although the

expected assessment of the year 1218 was in general realized, heavy balances accrued on that demand during the subsequent four years till 1222 in some of the parganas, with annual remissions, reductions, and partial re-settlements in consequence of the absconding of the landholders and sales of land without meeting purchasers."

Further on, regarding Mát and Noh Jhíl, the same persons say :—

"There is, however, reason to apprehend that the assessment thus retained during these four years (of the quartennial settlement) ought in many instances to have been reduced. In the parganas of Mát and Noh Jhíl particularly heavy balances accrued, notwithstanding considerable drains on the sureties, a general recourse to the distraint of personal property, and numerous exposures of lands to sale without meeting purchasers. The whole of these settlements from 1216 to 1218 had been made at a progressive increase with the view of securing the highest obtainable assessment for the last year of the lease, as such final assessment was to become permanent under the provisions of Regulation X. of 1807 ; and it may be apprehended that such ultimate assessment was proposed by the late Collector, Mr. Elliott, and acceded to by the landholders, without sufficient attention to the probable resources for meeting it."

There were other causes for the failure of this settlement. Until 1813 there was no demarcation of the boundaries of any estate, and until long after that there was no attempt at any record of rights. The Collector, with his hands full of the management of a huge and overgrown district, had no time to enquire into every case in the few months allotted to the work, and the engagement was often made with the man who intrigued best with native officials. One instance of the rascality of this body of officials has been preserved in these parganas. They entered in many cases the engaging zamíndars as mukaddams ; these the Collector recorded as farmers, giving the kanúngos an opportunity of claiming to be the real owners of the estates, which they did not fail to avail themselves of. The system of requiring security for one-fourth of the demand was also oppressive, and was not abolished till 1817 ; the security was generally an intriguing baniya, who received 5 per cent. for his trouble, making the system in reality a tax on the revenue. It was in Sadabad that the effects of the settlement were most felt. The assessment itself was very heavy ; the zamíndars were "notoriously turbulent and expert in low intrigue ;" and the accounts of the tahsildar, Agha Ali Khan, were in the greatest confusion. Nearly Rs. 10,000 were remitted for the first year of settlement alone, while by the end of the first year of the quartennial settlement no less than 46 of the 91 villages, covering nearly three-fourths of the area of the tahsíl, were farmed. In fact, the jama of the settlement in Sadabad just expired was some Rs. 7,000 under this crushing assessment. In the other parganas such drastic measures were not necessary, and a few farms enabled the Collector to realize the revenues.

The arrangements for the quartennial settlement were made by Mr. Newnham in Noh Jhíl, and Mr. Fergusson in the other parganas. There was no resettlement in the regular sense of the term, but fresh arrangements were made in farmed villages and where zamíndars were in arrears or refused to engage. The demand of this quartennial settlement was :—

							Rs.
Sádabad	...	...	...	...	...	...	2,35,536
Sahpau	...	...	...	...	...	...	40,028
Mahában	...	...	...	...	...	...	1,50,644
Sonai and Ráya	...	...	...	...	...	...	82,860
Noh Jhíl	...	...	...	...	...	...	1,15,572
Mát	...	...	...	...	...	...	66,740
Total	...	...	...	...	...	...	4,81,380

There was thus a decrease on the previous settlement in all the parganas except Noh Jhíl, which had been originally settled by Mr. Elliott, and not by Mr. Trant. The reductions were however insufficient, for, as the remarks of the Board of Commissioners already quoted show, the evils of the heavy demand first showed themselves in several parganas during these four years, and sales and farms became frequent ; so that before

the end of the term fresh reductions had to be made, or as the Collector, Mr. Fergusson, put it in October, 1814—"It is with extreme regret that I have to report the necessity of so great a reduction in the settlement of parganas Sádabad, &c." It is true that this settlement had to undergo the trial of local scarcity of 1813.

By this time the conviction had grown on the Government that the duties of the Collectorate of Aligarh could not be efficiently performed by one man. By their orders of 11th March, 1815, Mr. Boulderson was put in charge of Sádabad, Mahában, Ráya, Sonai, Sahpau, and other parganas, with his headquarters at Sádabad, as a division of the Aligarh district. By their subsequent order of 8th October, 1816, Sahpau and other parganas were transferred to the Agra district, and Noh Jhíl and Sikandra Rao put under Mr. Boulderson.

(d) Quinquennial settlement. Mr. Boulderson made the arrangements for the quinquennial settlement. His jamas were :—

							Rs.
Sahpau	...	...	...	...	...	...	50,146
Sádabad	...	...	...	...	...	...	2,23,173
Mahában	...	...	...	...	...	...	1,67,871
Sonai and Ráya	...	...	...	...	...	...	82,709
Noh Jhíl	...	...	...	...	...	...	1,24,583
Mát	...	...	...	...	...	...	93,435
Total	...	...	...	...	...	...	7,41,917

or an increase of over Rs. 60,000; but, in addition to the improvements of 10 years of a strong administration, the deputation of Mr. Boulderson to Sádabad was productive of great benefits to the people generally, and his vigorous and careful administration and judicious distribution of burdens wrought a rapid change in the condition of his subdivision. Within 18 months of his first deputation the Governor-General in Council was able to notice with the "greatest satisfaction the important public advantages which have resulted" from the measure; while, writing in 1817, the Board of Commissioners, in submitting his settlement for sanction, say: "The settlement formed by Mr. Boulderson of these parganas has re-established the highest assessment of the year 1218; and as the full assessment has been punctually realized during the past and current years, we may safely venture to recommend these arrangements to your Lordship's sanction. The rapid improvement in the management of these parganas is a proof of his (Mr. Boulderson's) zeal and abilities; the immediate restoration of confidence among the landholders evinces his temper and discretion; and these arrangements, which promise to give stability to the public revenue, show his judgment and information." The old complaints of the turbulence and refractory spirit of the zamíndars disappear from this time, and thus we get another proof of how often these words are synonymous with bad administration. The eulogy passed on Mr. Boulderson's work seems to have been well deserved, and, with the exception of necessary changes from farmer to proprietors, his settlement remained in force until the commencement of the revision under Regulation VII of 1822.

But gradually it was felt that the Aligarh district with its two subdivisions was too large, and that further changes were necessary. The Governor-General on October 31st, 1823, authorized the creation of a new district at Sádabad with Mr. Boddam as Collector. To it were transferred parganas Sádabad, Mahában, Mát, Sonai, Ráya, and other parganas now in Agra and Aligarh, while Sahpau was given from Agra, and in the following year Noh Jhíl was added from Aligarh. The revenue of these parganas as given at this date differs by only Rs. 5,000, the result of changes in farms from that imposed by Mr. Boulderson eight years before.

The settlements under Regulation VII of 1822 were carried out by Mr. Deedes.

(e) Settlements under Regulation VII of 1822. He settled Mahában, Ráya, Sonai, Sádabad, and a few villages of Mát. His system was based on a careful estimate of the capabilities of each village, entirely rejecting all pargana general rates. For his purpose, therefore, it was necessary that the village history should be most

carefully drawn up. His procedure may be briefly described as follows :—No maps were prepared, but each field was measured and numbered, and its number, name, and area were recorded in a khasra. The wet area was distinguished from the dry, and a rough division of the fields into two, or at most three, classes was made, according to the situation or the character of the soil. The ownership of each field was also recorded. The tahsildar then tested the accuracy of the entries and drew up a short history of the village, including an abstract of this khasra, showing the proportions of cultivated, culturable, and waste, an abstract of the demands, receipts, and balances of previous years, a notice of the particular mode of village management, caste and condition of the proprietors, rights and privileges of the different classes of occupants, the subdivisions of the estate, the mode of paying the Government demand, the check on the expenditure, the particulars as to rent-free tenures, observations on how the demands of previous years had been met ; with this paper was sent an abstract of the disputes raised in the village, with a note of the evidence taken on the spot (these disputes were as often as possible settled by arbitration). The record-keeper added to this paper all important papers in the central office, and then the record was ready for the Collector's final proceeding. These village histories, known as the *juz-o-kul*, are still existing for many estates, and have in some instances been of great value. The real basis of the assessment formed on this paper was rent which the land of the village could afford to pay, and in arriving at this Mr. Deedes avoided all attempts at statistical calculations based on produce. From his estimated annual letting value which was deduced from the tahsil statements 25 per cent. was deducted, and the remainder declared to be the Government demand. This was the general rule, but in some cases Mr. Deedes went as high as deducting 35 per cent. He does not seem to have treated village communities with as much leniency as he treated samindari villages. Sahpau was settled under the same regulation almost entirely by Mr. Tyler. His system slightly differed from Mr. Deedes in that the soil of the village was divided into three classes, according to its proximity or distance from the village site, and these again into wet and dry, and a village jamabandi based on this drawn up by the tahsildar. In other respects his procedure resembled Mr. Deedes'.

It was however very soon found that Regulation VII. of 1822 was far too cumbersome, and that at the rate of progress made it would take from 16 to 20 years to complete the settlement of the district. Regulation IX. of 1833 was therefore passed, and under it the settlements of the rest of Mát and of the whole of Noh Jhíl were completed by Mr. Tyler, who in 1832 was appointed Collector of the newly-formed district of Muttra. His plan was much the same as that adopted by him in Sahpau. The village soils were divided into bára, manjha, barha, and khádar, wet and dry. A village jamabandi was prepared on this, and, after a rough allowance had been made for errors, 25 per cent. was deducted, of which 20 per cent. was haq malikana and 5 per cent. for the lambardar, and the remainder imposed as Government revenue. The new demand was :—

							Rs.
Sáhpau	...	...	...	...	...	...	57,214
Sadábád	...	...	...	...	...	...	2,32,998
Maháben	...	...	...	...	...	...	1,70,016
Renai and Báya	...	...	...	...	...	...	79,187
Noh Jhíl	...	...	...	...	...	...	1,81,975
Mát	...	...	...	...	...	...	1,20,748
Total						...	7,92,181

a rise of about Rs. 50,000 on Mr. Boulderson's assessment.

To complete the fiscal history of the parganas on the left bank of the Jumna it is necessary to note that of the villages received from Aligarh in 1840. These villages were talúkas Sonkh, Madim, Dune-tiya, and Ar Laskarpur, together with Chauhari and Khandiya and Tehra of talúak Joar. The first three of these were, as we have seen, given over to Rája Bhagwant Singh on political grounds, while the remainder were part of his talúka. Rája Bhagwant



Singh died on 9th October, 1828, and was succeeded by his son Rája Tikam Singh, and this opportunity was seized as a favourable one to some extent protect the right of the under-holders by a sub-settlement. The settlement was made under Regulation IX. of 1833 by Mr. J. Thornton. In zamindari villages, where the talúkdar was found owning all rights, the assessment was made at 70 per cent. of the assumed assets; in biswadari villages the Government share was 62 per cent., and of the balance 18 per cent. went to the talúkdar and 20 to the biswadars; when however the biswadars lost their rights, and the talúkdar was admitted to engagement as full proprietor, the Government demand was raised by 8 per cent. to 70 per cent. of the estimated assets. In Ar Laskarpur and Sonkh the mukaddams of all the villages were engaged with. In Madima biswadari rights were only traced in two villages. In Chauhari and Khandiya the mukaddams were admitted, and the same in Tehra; but these last, after the completion of the settlement, relinquished their rights. In Dunetiya sub-rights exist in thirteen of the seventeen villages. The jama imposed on the biswadars payable to Government was:—

						Rs. s. p.
Ar Laskarpur	...	...	...	...	...	6,999 10 0
Sonkh	...	...	...	...	...	5,834 0 0
Madima	...	...	...	...	...	4,082 0 0
Chauhari and Khandiya	...	...	...	...	...	1,091 0 0
Dunetiya	...	...	...	...	...	5,731 0 0
Tehra	...	...	...	...	...	1,224 0 0

The subsequent history of these talúkas will be given with the fiscal history of the lately expired settlement.

This settlement when imposed fell as follows:—

					On the cultivated acre.	On the assessable acre.
					Rs. s. p.	Rs. s. p.
Sáhpán	...	...	...	...	3 4 4	3 0 4
Sádabad	...	...	...	...	3 2 10	2 14 3
Mahában	...	...	...	...	2 14 9	2 7 2
Sonai	...	...	...	...	2 14 6	2 7 0
Ráya	...	...	...	...	2 12 1	2 5 10
Mát	...	...	...	...	2 9 3	2 3 0
Noh Jhál	...	...	...	...	2 8 4	2 0 11

## II.—Fiscal history of the Cis-Jumna parganas to the conclusion of the last settlement.

The Muttra pargana was the only one of the Cis-Jumna ones for which a settlement was made in the 1st triennial by English officers. The then boundaries differed slightly from those of the last settlement. (a) 1st triennial settlement. Datiya and Morra of Sonsa, and Phenohri, Badhanta, and Sakna of Aríng, were included in it. While Jait and Junai belonged to Sahar, and Masumnagar, Maholi, Salempur, and Baburi were in Sonsa. On March 5th, 1806, Mr. Wemyss sent in his proposals for the settlement which was to date from the previous June. He professed his inability to leave his headquarters, and contented himself with sending out amíns and tahsildars to report on the general condition of the country, and his letter merely gives their estimates. He was succeeded by Mr. Ross on March 15th, and on April 1st the Board of Commissioners wrote to him setting aside Mr. Wemyss's proposals as of no value, and directing him to take up the whole question. They instructed him that "they are not so desirous of an increase of the revenue as they are of the jama being allotted as equally as can be effected on the different estates. On the assessment being concluded at too high a rate, apprehensions are to be entertained of the zamíndars not fulfilling their engagements with the Government, the consequence of which will be a diminution of the public resources by the estates being left uncultivated. The Board therefore require your particular attention to ascertain whether the allotment of the jamas has in general been made so proportionate as circumstances will admit of, or whether the tahsildars, in concluding the settlement, have not allowed some favoured zamíndars to give in their darkhwasts at an under rate, and, in order to make up the deficiency arising

from such favour, have increased the jama of the other malguzars." Mr. Ross's reply to this is dated August 12th, 1806. The difficulties he encountered, and the way in which he met them, will be best described in his own words:—"The persons in charge of the different parganas had only delivered the estimates from which the statement of the proposed settlement with my predecessor's letter of the 5th of March was made out. They had not received any proposals from the malguzars, who, doubtful whether a settlement was to be concluded with them, had made only small payments on account of their revenue, which from the whole of the district (including the parganas and mahals which have been ceded by treaty and granted in jágir since the commencement of the year) amounted to only Rs. 3,80,706-6-8, notwithstanding the rabi crops was in most places ready to be cut, and notwithstanding (for no measures had been taken to make collections khas) they had collected the full amount of their rents from their ryots; under these circumstances it was absolutely necessary, in order to prevent a great loss of revenue, to conclude the settlement with the malguzars without any further delay, and according to such accounts and information respecting the state of the mahals as could be immediately obtained. Immediately, therefore, on receiving charge of the district, I issued a publication throughout all the parganas, informing the malguzars that a triennial settlement would now be concluded with them, and calling upon them to attend on me at this place for that purpose; at the same time I directed the tahsildars to place watchmen on the crops, and to repair to me with the least possible delay, together with the kanúngos and chaudharis of their respective parganas. All the zamindars, with the exception of a very few, accordingly attended on me with the utmost readiness, and I effected the settlement without any considerable difficulty, having fixed the jama on the grounds and information explained in the following paragraphs.

"On my arrival at Agra I found that there were many persons desirous of farming whole parganas. Without intending to conclude the settlement with them if a mufassil settlement could be possibly effected with the malguzars, I gave them every encouragement. Proposals were consequently tendered to me for all the parganas of the district by several persons for each pargana. As those persons had been employed as ámils in the district under the late Government, they not only knew the former resources of the parganas which they were desirous to farm, but being acquainted with their principal inhabitants, and having resided in the district ever since it came into our possession, they had the means of also ascertaining pretty correctly the present actual state of them. It was not likely, therefore, that they could offer more than the resources of the parganas were fully sufficient to enable them to discharge after defraying the expenses of collection, and allowing, moreover, a considerable profit to themselves.

"On this consideration I thought there was no reason to apprehend that the jama thus offered for the different parganas was too high; for want, therefore, of more satisfactory accounts which could not be immediately, and perhaps not at any time, obtained, I fixed the amount of the proposals which had been tendered for each pargana as the total jama to be assessed on it for the current year, and allotted it on the different estates on a consideration of the jama-wasilbaki accounts for the years 1212 and 1211, the same accounts for the years 1210, 1209, and 1208, the three last years of the late Government, the estimates for the current year delivered by the tahsildars, and the information furnished by the kanúngos and chaudharis respecting the state of the cultivation.

"The jama thus fixed for the current year, although considerably exceeding that of the preceding year 1212, was yet in general much short of the jama realized from the mahals by the former Government. The deficiency was attributed to the reduced state of the cultivation in consequence of the war. As the lands, however, stated to be left uncultivated had remained fallow at most only two years, and were capable of being immediately brought into cultivation without much extraordinary expense,

I deemed it my duty to endeavour to restore as far as practicable in the last year of the settlement the jama of 1210. The settlement has therefore been made at an increasing jama, the rate of increase having been determined on a consideration of the present compared with the former state of the mahals and the condition of the malguzars, ascertained as well as possible from the accounts and information already mentioned.

“ With regard to the allotment of the jama on the different estates, I hope the Board will be satisfied that it is as equal as under all circumstances it was possible to make it. I cannot take upon me to say that it bears in every instance exactly the same proportion to the actual resources of the lands ; no estate, however, has been charged with a larger amount, even for the last year of the settlement, than was actually realized from it under the former Government, or than it was well ascertained to be capable of yielding from detailed accounts of the assets, which in some few cases the kanúngos happened to be able to furnish. I think I may, therefore, venture to assure the Board, that, however many mahals may have been rated too low, no apprehension need be entertained that many instances will occur of overassessment.”

Though few estates remained in direct management, the farms were numerous ; but this would seem to have arisen not from the severity of Mr. Ross's demand, but because many of the farmers had been long in possession, and between them and the zamíndars there existed engagements. The demand of the last year of this settlement, which was sanctioned by the Governor-General in Council on August 21st, 1806, was for pargana Muttra Rs. 6,350 ; pargana Muttra was then part of the Farah tahsil.

A year after this the Commissioners expressed their intention of commencing their inspection of the North-West with a view to the formation of a permanent settlement with the Agra district. In his reply to this intimation, Mr. Ross in his letter of 29th September, 1807, gives a valuable account of the state of the country at that time, as well as his views on the expediency of immediately fixing the demand in perpetuity. He says :—

“ The district is in general well cultivated, and no very great further improvement can, I think, be expected either from the cultivation being extended, or from the introduction of the cultivation of more valuable articles than what are already produced. The population is by no means deficient, and the zamíndars for the most part neither want resources nor seem to be deficient in experience.

“ The proprietary right in the lands is not generally contested ; there are at present but few causes for estates before the Court ; more may be hereafter instituted on the ground of former possession, but I will venture to say that few of the claimants will be able to prove that they held possession under a better title than the present occupants. In short, I am of opinion that the state of the district is in every respect such as would warrant the immediate introduction of a permanent settlement, at least that it is capable of now yielding as large a fixed revenue as Government can expect ever to obtain from it, allowing such room for further improvement as ought to be left to encourage the industry of the landholders and to render their property in the lands of any value.

“ But although I am of opinion that the general state of the district would warrant the immediate introduction of a permanent settlement, I do not think that such a settlement can be yet effected, both from the want of correct information respecting the actual resources of the different estates, and from the unwillingness of the zamíndars to engage for their lands at such a jama as could be declared fixed in perpetuity without prejudice to the interests of Government.

“ The zamíndars here have been so accustomed to changes of government, and the present has yet been established so short a time, that they naturally do not expect that it will last longer than the former. They will therefore prefer a temporary settlement at a low jama, for any term however short, to a permanent one at a jama which, if proportionate to the produce of their lands, would exceed what had ever been paid by them before.

"The want of correct information respecting the assets of the lands will render it difficult to form even a temporary settlement in such a manner that the jama shall be apportioned equally on all the different estates.

"The only documents which I at present possess for regulating the assessment are the jama-wasilbaki accounts delivered by the kanúgos of the several parganas for a period of ten years ending with 1210, the last year of the former Government. But these accounts are not sufficient. They only exhibit the jama assessed on the different estates in each year of the above period and the amount realized from them by the ámils, which did not bear any regular proportion to the capability of the lands. The ámils under the former Government collected the revenue by violent means; they enforced from the petty zamíndars nearly the full jama which their estates enabled them to pay, while from those who could make any opposition they were content to accept much less.

"The other accounts which will be obtained are those which have been required by you from the tahsildars respecting the quantity of land in cultivation and the different articles of produce; the jamabandi or rent-rolls of the different estates; and the dows or estimates preferred by the kanúgos of the jama which each estate is capable of yielding. The accounts of the quantity of land in cultivation, as well as the jamabandi accounts, will be obtained from the patwáris, and, as these officers consider themselves as altogether the servants of the zamíndars, will be deserving of very little credit. The estimates of the kanúgos, if prepared in the common way, will probably exhibit only the jama which those officers think the zamíndars will be induced to assent to, or if the jama should be stated in them which it is supposed the estates are really capable of yielding, being formed from no particular information, they will be unsupported by any satisfactory proof of accuracy."

The Commissioners, however, considered that the advantages of a permanent settlement would far outweigh the disadvantages, and in forwarding Mr. Ross's letter to the Governor-General they proposed to carry Regulation X of 1807 into effect in the Agra district as an experiment, without in any way touching on the advisability, or the reverse, of a permanent settlement in the provinces generally. For this course they urged two reasons which seemed to them of great weight: the first was the small size of the district, which would render the loss in any case very small; and the second, its position, which was an advanced frontier or barrier to Native States not particularly friendly to the English rule, which rendered imperative some measure for interesting the landlords in the permanency of our occupation. After visiting the district, the Commissioners adhered to their former opinion; they allowed that our knowledge of the country was defective, and that—to say nothing of culturable waste—only seven-tenths of the area formerly cultivated was now under the plough. But in addition to the arguments they had used before, they urge that, though the cultivation was absolutely backward, it was relatively more advanced than the country generally; that in population the district was not deficient; that the landlords were wealthy, and their titles to their estates uncontested; and finally, that the then Collector (Mr. Ross) had an extensive knowledge of his district.

With a view to permanency, the 2nd triennial settlement was formed by Mr. Ross, who reported his proposals on December 24th, 1808, for the three years from June, 1808 to June, 1811. In every case he went below the full amount that could be demanded under Regulation IX of 1805. His survey was a summary one, made by kanúgos and mirdahas, and from his deduced jamabandi he deducted one-tenth (half the income of every fifth year) for calamities of season. This gave his gross assets, which he considered to be near the truth; from this was taken 5 per cent. for expenses of management and 10 per cent. for proprietary right. The remainder, however, he still considered too high a revenue, for he goes on to say:—

"It would have only allowed to the zamíndars, upon a general average, not quite a sixth part of the gross assets of their estates, in many instances not near so much,

for casualties of season, nankar, charges of management and every other expense; a proportion much too small even were the lands susceptible of great further improvement, which is not the case in this district. So high an assessment they could not have paid, and it would therefore have been wrong to have endeavoured to induce them to engage for it.

"The jama calculated according to the rule adopted by me allows about a fourth of the gross assets to the zamindars. To this jama, however although so much less than that demandable, they all objected. I was therefore obliged in almost every instance to abate from it, so that the jama at which the settlement has been concluded for the year 1218 allows to them, upon an average, a proportion of the assets somewhat greater than that above mentioned. In some few cases the proportion allowed is nearly a third, and even this proportion, had it been generally allowed, I am inclined to think, would not have been too much in a district situated as this is, and where most of the estates are already nearly completely cultivated.

"On these considerations, I trust that my having receded in favour of the zamindars from the rule prescribed for forming the assessment will be approved, and that the jama at which the settlement has been concluded will be deemed sufficiently high and advantageous to Government."

The jama for permanency varied as the condition of the estate: if more than seven-eighths were cultivated, a reduction proportionate to the excess above that proportion was allowed on the revenue; if three-fourths were cultivated, the jama of the triennial remained unchanged; if less, the increase depended on the difference between the area cultivated and that proportion. Mr. Ross still, however, maintained his opinion that his information was not full enough to allow a fixing of the demand in perpetuity. No villages in Muttra were farmed at this settlement, and only two held in direct management. To one of them—Dhangaon—the claim of the heirs of Colonel Sutherland was disallowed, as they were European British subjects; and to the other—Pannapur—the claimant was shown to have forged his title deeds. By the order of the Board a settlement of these was to be made with the village communities. At this settlement also the entire villages of Murshidpur, Madhopur, Sarai Jamalpur, and Tartaura, valued at Rs. 859 yearly, but which had been included in the cantonments, were struck off the revenue-roll. The demand of the three years was:—

							Rs.
1216	...	...	...	...	...	...	7,148
1217	...	...	...	...	...	...	7,965
1218	...	...	...	...	...	...	8,745
In perpetuity	...	...	...	...	...	...	*10,238

As the gross assets were estimated at Rs. 12,499, the assessment of the first year was under 60 per cent. of them. The Board warmly recommended Mr. Ross's proposals for sanction, and this was conveyed in the letter of the Governor-General of September 1st, 1809, which also, pending the consent of the Court of Directors, sanctioned the permanency of the demand.† On November 18th, 1808, Mr. Ross reported that he had obtained possession of the remaining Cis-Jumna parganas from Scindhia's amils and formed them into two tahsils—Sonkh, Sahar, and Sonsa in one, with the tahsildar at Sahar, and Kosi and Shergarh into another, with the tahsildar at Kosi. Sonkh and Sonsa then differed but little from what they did at last settlement. Sahar contained the greater part of Aring and part of Muttra. In Kosi were a few villages now in Sahar, and in Shergarh some now in Kosi, while since that date Biruki has been transferred to Gurgaon and Kharaut received from it. Mr. Ross left the district before the conclusion of the settlement of these parganas, and this work devolved on

\* It is unfortunate that in the elaborate accounts both of this and of the other settlements no areas are anywhere given.

† The whole extra cost of this settlement was Rs. 3,180 on a final demand of nearly Rs. 11,00,000. The tahsildari establishment found necessary for Farah and Muttra, with a jama of nearly Rs. 70,000, was then per month—tahsildar Rs. 130; peshkar Rs. 25; two writers on Rs. 15 and Rs. 10 respectively; fotdar Rs. 15; parkar Rs. 7-4; mirdahas Rs. 16; 30 barkandazes Rs. 105; contingencies Rs. 12—the total per annum being Rs. 4,020.

his successor, Mr. Trant; his report dated June 9th, 1809, is full and interesting, and I quote from it both to give a view of the then state of the country and of the method followed in forming the settlement :—

“ The total want of village accounts, there not being any patwáris employed in the parganas) and the palpable falsity of the dows delivered to me by the kanúngos and tahsildars, obliged me to take as the ground of the assessment the jama of former years; compared with the general appearance of the parganas, a great part of which I visited in person, I have every reason to suppose that the assessment is as equal and proper as it could have been under such circumstances. These remarks only apply to Kosi, Shergarh, and Sahar, the great extent of which precluded an accurate survey. The parganas Sonkh and Sonsa being comparatively small, and appearing to be capable of yielding a much greater revenue than is recorded in any of the accounts of past years, I caused an exact measurement and valuation of the several estates to be made, which I verified as far as possible by a personal inspection of almost all of them. The result gave a produce greater even than I had expected. I proceeded to form the settlement, making the deductions on account of nankar and dekhkharcha as prescribed by the Board. But although I calculated the assets according to the rates of jama-bandi which the kanúngos and zamíndars asserted to be established in Sonkh and Sonsa, and which are much lower than those of the adjoining parganas of Fáraah and Muttra, the zamíndars would not listen to the terms proposed.

“ As the rabi harvest was nearly ripe, I sent sazwals to prevent the crops being cut by the ryots until the proprietors should come to some reasonable terms, or give security for the Government share. There was every appearance of a disposition to resist the persons whom I had deputed. I therefore thought it better to relax from my demand than to meet the consequences which would almost certainly have resulted from an attempt to make the collections kham. The well-known contumacy of the zamíndars, especially those of Sonkh, which borders the territory of Bhartpur, prevented any persons from coming forward as farmers.

“ The Board will observe that, although the assessment in Sonkh is less than what is demandable under the rules prescribed with reference to the gross produce, it exceeds the highest recorded jama of the last six years—in the present year by Rs. 12,026, and in the third year by Rs. 26,861. The pargana is more fully cultivated than any other in the district of Agra. Sonsa is in a much inferior state. I attribute the great superiority of Sonkh to the circumstance of almost all the zamíndars being Játs, a class of the most industrious and successful cultivators in this part of India.

“ The state of cultivation in the parganas of Sahar and Shergarh is by no means flourishing. There are large tracts of land in both which are capable of production, but have been long neglected. Shergarh is represented to have been much more completely peopled and cultivated at no very distant period. The wells are few in these parganas: consequently the cultivators depend almost entirely on the favourableness of the seasons for the reward of their labours. The drought of the present and the last year has been severely felt. From a consideration of this I have been induced to propose a much lower jama in these parganas for the present year than I should have done under other circumstances. The calamity of season, though in a less degree, has extended generally, and I have thought it advisable to make a rasadi settlement in all cases.

“ Kosi, though tolerably well cultivated, is capable of much improvement; but the neighbourhood of the Mewat country, notorious for the predatory disposition of its inhabitants, operates as a great check to the industry of the cultivators. Although it is perhaps not strictly within my province, I venture to declare my opinion that a most efficient police establishment is indispensably necessary to secure the punctual realization of the revenue in this pargana, and indeed in all of them. During the time that I remained in the pargana several daring outrages occurred, and an attempt was made to plunder a remittance of treasure from the tahsildar of Kosi.

" A list of the establishments formed by the late Collector is transmitted. I have considered it to be proper to recommend an addition to the number of peons, 20 on each establishment, and I would further request that 5 sawars be allowed for each. The distance of the tahsildar's kutcherry from Agra and the danger from the attacks of banditti renders them very necessary for escorting treasure.

" As these parganas, although alienated from the rent-roll of the district, had not been rendered independent of the British authority, and as I had not received any special instructions, I considered it probable that the settlement would be rendered permanent, and I held out a hope that the benefit of a permanent settlement would be extended to these parganas ; at the same time, however, I distinctly explained to the zamindars that the stability of the engagements which they had entered into with me depended upon the pleasure of superior authorities, and that the expediency of these engagements being declared perpetual was to be determined by the Governor-General in Council and the controlling power in England. An expectation of sharing this advantage in common with the landholders in general under the British Government certainly induced the proprietors to agree to higher terms than they would have with the idea of a temporary settlement. It is probable that in a re-settlement at the expiration of three years some increase of revenue might be obtained, but it is my belief that the increase would not be sufficient to compensate the inconvenience attending the revision of a settlement."

Mr. Trant resumed 18 villages which had been given free of revenue by Scindhia after the grant of the jagir ; referred for orders the cases of 12 more, of which 6 were by order of Government resumed, and also the case of the Bishnath Babu, who had been given three villages in jagir (Khaira, Aring, and Akbarpur). To this Bishnath Babu, a Kashmiri Pandit of Scindhia's, Aring was given for his life, while Khaira and Akbarpur were at once resumed. The demand of this settlement\* would seem to have been :—

	1216.	1217.	1218.
	Rs.	Rs.	Rs.
Kosi ... ..	82,660	94,210	1,04,750
Sahar ... ..	78,233	88,399	95,273
Sonkh ... ..	52,080	61,090	66,915
Shergarh ... ..	23,807	32,575	39,350
Sonsa ... ..	17,210	20,720	22,925
Total ... ..	2,53,990	2,96,994	3,29,213

By the letter of the Governor-General of August 28th, 1809, this settlement was confirmed, and the demand of 1218 (1810-11), subject to the approval of the Court of Directors, declared permanent. Thus it is now nearly exactly 70 years since the revenue of this side of the district was declared fixed in perpetuity at a demand of Rs. 3,40,000 ; the assessment is now Rs. 6,20,000. Rs. 40,000 is an ample allowance for the revenue of Gobardhan and the resumed muáfis, so that had the measure been confirmed, the loss to Government would have been for this small tract of country close on 2½ lakhs yearly : and this would not have been the only loss, for as was found in Bengal, though under assessments could not be raised, over assessments (and in a settlement formed on such insufficient data there must be some such) must be reduced

\* The extra cost of this settlement was Rs. 433-11-8, and the tahsil establishment required for each tahsil per month—

	Rs.	s.	p.
Tahsildar ... ..	200	0	0
Peshkar ... ..	40	0	0
1 writer on Rs. 10 and 3 writers on Rs. 15	45	0	0
Fotdar ... ..	20	0	0
Jamadar ... ..	8	0	0
75 peons ... ..	262	8	0
5 sawars ... ..	75	0	0
Contingencies ... ..	20	0	0
Total ... ..	670	8	0

Of the demand of the first year about Rs. 70,000 had been collected by Scindhia's amils before the resumption, and the zamindars were credited with the payment.

or the revenue annually remitted. In forming this settlement Mr. Trant followed more in the footsteps of Mr. Ross, and did not therefore work such havoc as in the parganas which he settled in Aligarh; he allows, too, that he was daunted by the firm front shown by the Sonkh zamindars, and lowered his demands there. Still there were many farms, partly from the uncertainty in some cases of who was to be admitted to engagement, but chiefly from the refusal of the zamindars to accept the jama fixed. Thus, out of 46 villages of Kosi 8 were farmed, of 75 of Sahar 30, of 32 of Shergarh 16, and of 26 of Sonsa 4, Sonkh having none. This is in striking contrast to the case of Muttra settled by Mr. Ross, for in that pargana only Dhangaon was farmed at this settlement, and this village was settled not by Mr. Ross, but by Mr. Martin, and in the quinquennial the zamindars of Arehra alone refused to continue to hold on at the old revenue. In fact, if the standard of comfort in the Cis-Jumna tahsils is higher than in the Trans-Jumna—and in so far as such standard depends on the more extended and undisturbed participation in the profits of land it certainly is—the inhabitants may thank Mr. Ross for it. The care which he took with all the means in his power to discover the real condition of the country, the leniency with which he allowed every possible consideration in favour of the zamindars, and the justice with which he apportioned the demand on the various estates, are all beyond praise. Assisted in part, it is true, by the smaller size of the district, his administration stands out in bright contrast to the earlier ones of Aligarh, and the key-note of consideration for the cultivating proprietary bodies which he struck has ever since ruled the treatment of these parganas. Reviewing this settlement, the Board of Commissioners could with justice say of his share in it:—

“The judicious measures adopted by the late Collector, Mr. Ross, for ascertaining, with as much accuracy as the nature of the case could admit, the real assets of each estate; the principles on which he has estimated the assessment which, with reference to those assets, Government would have a right to demand, and, under other circumstances, the landholders might have been expected to pay; and the motives which have induced him to accede to a progressive settlement in most instances, are so perspicuously exposed in his several letters, that we deem it, in justice to him, our duty to submit them entire to your Lordship: and we beg leave to add, from the result of our own personal observations in our progress through the district, our conviction that no other arrangement could have reconciled the rights of Government with the interest of their subjects.

“It is at the same time probable that, if the only object of the present settlement had been to draw from these provinces the utmost revenue of which they are capable, the full assessment of Mr. Ross’s estimates might in many instances have been obtained by a recourse to farmers. But in the more important view of conciliating the whole body of landholders, and consolidating the British Government in the reciprocal attachment of their subjects, we doubt not your Lordship will be of opinion that a partial sacrifice of the full revenue which Government might have claimed, and an occasioned deviation from a strict observance of the rules prescribed for the formation of the present settlement, are fully compensated by the general admission of the owners of the soil.

“In this view of the subject, it will be satisfactory to observe that, with few and unavoidable exceptions, these settlements have been concluded almost universally with the recognized and hereditary proprietors, or with persons deriving their right from them under mortgages or other temporary assignments; and this result of our labours we cannot but look upon as a source of personal congratulation to ourselves, and as reflecting credit on the local officers through whom the arrangements have been effected.”

There was no regular revision of the settlement during the quinquennial period, but the farmed estates were, as far as possible, settled with the resident proprietors, sales were not much resorted to, and

(c) Quinquennial settlement.



remissions were granted where necessary. This settlement of farmed lands in 1812 fell chiefly on Mr. Ryley. Through changes from this cause the demand of the last year of the settlement became—

						Rs.
Sahar	...	...	...	...	...	85,176
Sonkh	...	...	...	...	...	68,965
Sonsa	...	...	...	...	...	23,241
Kosi	...	...	...	...	...	105,880
Shergarhi	...	...	...	...	...	89,430
Muttra	...	...	...	...	...	10,490
Total						3,33,182

There are no areas given for the different parganas at this settlement, but it would appear that over the Agra district generally the revenue fell in 1814-15 (1222 fasli) at Rs. 2-0-9 on the cultivated acre, Re. 1-9-7 on the culturable acre, and Re. 1-2-0 on the whole. From a long continuation of bad seasons, however, the condition of the country had become so deteriorated that for no year of the settlement was the full demand collected, and year by year the irrecoverable balances increased, amounting in the last year to nearly 8 per cent of the assessment. I have elsewhere remarked on how severely the scarcity of these years was felt in this district.

It was under these circumstances that the time came for the quinquennial settlement. The first proposals for it were sent by Mr. Wright; his assessment showed a decrease of Rs. 57,582 on the demand of 1222 fasli for the first year (1223 fasli), rising rapidly to a jama which showed an increase of Rs. 94,294 on the first year for the last (1227 fasli). The Board of Commissioners disallowed this assessment in their letter of October 11th, 1816. It was too late then to make any enquiries into the justice of the arrangements for 1223 fasli as the year had expired in the previous June, although the balances under the reduced demand for that year were far heavier than those even of the previous one. As they say an improvident landlord would, to gain momentary relief, consent to any future encumbrance, and they therefore doubted if, in the face of the uncollected balances of 1223 fasli, the enhanced demand could stand. They go on to say :—

“The Board cannot look with any confidence to the punctual realization in this current year of a demand thus suddenly enhanced to so disproportionate an extent, and if the Board’s apprehensions should be well founded, the result of such an enhanced demand may be productive of more injurious consequences than the mere disappointment in the expected receipt of the increase. All progressive settlements are, on general principles, objectionable, except when the final assessment of the progressive scale is intended and avowed to be the utmost limit of future demand. An expectation that industry will be exerted and capital will be employed in improving the resources necessary to meet an annually increasing burthen, with a declared liability to a further enhancement proportionate to the success of the improvement, shows a gross ignorance of human nature and of the motives by which all human actions are directed. The Board have accordingly had frequent occasions to regret the adoption of arrangements intended to secure a participation in future improvements, but which in their result have on the contrary been found to retard its progress, and they would have been satisfied if the present arrangement had merely re-established in the subsequent four years the abatements of the first year from the former assessment.”

They did not, however, direct any formal revision, but merely desired enquiries into the worst cases during the yearly tour. On Mr. Boulderson this work devolved, and his proposals, which were not very sweeping, were reported in January and February, 1817. He in all cases retained the jama of 1224 fasli, but in 4 villages each of Muttra, Sonkh, and Shergarh, 28 in Sahar, 2 in Sonsa, and 14 in Kosi, reduced the

increment proposed for the succeeding years. The demand for the last years of this settlement thus became—

Name of pargana.				1224 fasli.	1225 fasli.	1226 fasli.	1227 fasli.
				Rs.	Rs.	Rs.	Rs.
Muttra ...	...	...	...	13,770	14,615	15,475	16,050
Sahar ...	...	...	...	86,755	92,380	94,780	96,255
Sonkh ...	...	...	...	59,143	62,628	65,404	67,344
Sousa ...	...	...	...	21,605	23,180	24,110	24,650
Kosi ...	...	...	...	1,10,000	1,12,875	1,14,700	1,16,355
Shergarh ...	...	...	...	37,100	39,045	40,120	40,965
Total ...				3,28,373	3,44,623	3,54,539	3,61,619

Of the working of this settlement I have no record, but the demand seems to have been collected without much difficulty. It was continued by various enactments until the completion of a new settlement under Regulation VII of 1822; but though no new assessments were made, it appears that additions were made to the old jamas: for, examining Mr. Boddam's old village statements, I find that Rs. 25, Rs. 50, or Rs. 75, but generally the smaller sum, were added to the revenue of each village in the year 1220 (1228 fasli). This addition does not seem to have been made on any principle whatever, and the reason for it I cannot discover. By these means the revenue of 1827 became Rs. 4,26,386.

Gobardhan was handed over to the British authorities in 1826. For the first two years until Mr. Boddam began his settlement it was under the management of Mr. Macsween, the Magistrate of Agra. It then consisted of 15 villages, of which 3 were muafi and 12 khalsa. The Bhartpur system of management seems to have been based on crop rates for the pargana, the area under each crop being measured up when ripe and ready for cutting. Mr. Macsween apparently adopted this Bhartpur system, and his collections were in 1234 fasli (1826-27) Rs. 26,256-3-6, of which Rs. 3,333-11-2 were paid to the zamindars as rewards for encouraging the cultivation. As the cultivated area was 7,946 acres, this rent fell at about Rs. 2-88 the acre. The collections in 1235 fasli were not much different. The two years appear to have been favourable ones, and consequently this system of yearly asamiwar assessment succeeded; but Mr. Boddam, in making a regular settlement for a number of years, found it impossible to work up to this high demand.

The revision of the settlement of 150 villages of the Agra district, of which 108 are now in Muttra, was made by Mr. Boddam, Collector of Agra, under Regulation VII of 1822. The correspondence between that officer and Mr. Macsween, then Commissioner of Agra, and the letters of the Board of Revenue on this settlement, are of extreme interest, for not only was the system of settlement attacked and defended, but here for the first time we find discussions as to the rights of pattidars, or of those proprietors in villages who did not engage directly with Government, and also as to the rights of tenants of the various kinds, whether right of occupancy tenants, tenants-at-will, or paikasht tenants. Of Mr. Boddam's attempts to recover for the pattidars of the Lala Babu's villages the rights from which they had been ousted I have elsewhere spoken; in this he failed, as well as in his endeavours of a similar kind in other villages. There was, however, another point connected with these rights in which he does not appear to have had such good ground for going on, and that is his record of the rights in the village communities. He endeavoured here to altogether ignore cultivating possession and to revert entirely to hereditary rights; in this he was overruled, and the only trace of his attempt is to be found in the khewats of some of these villages where empty fractional shares are still sometimes recorded. Regarding tenants, his custom was to give leases to all village tenants, whether hereditary or not, for the term of settlement, at the rates of his assumed jamabandi, less the deduction for the chances of season, leaving paikasht tenants to

make their own terms with the zamindars. To this the Commissioner made two objections: 1st, that by so doing he created in favour of non-hereditary tenants rights which had never before existed; and 2nd, that he interfered in the internal management of the estates, especially the village communities which formed the majority of the estates assessed by him, where the tenants' rent had always been the *bachh* or revenue-rate payable by the zamindars. But, as a fact, Mr. Boddam's well-meant attempt to improve the position of the tenants by a sub-settlement was still-born. The pattas were accepted by the tenants, but the villagers, when the Collector's back was turned, reverted to their old customs again; and the result of an enquiry made about five years later showed that in only three villages had Mr. Boddam's rates been adopted, and in these only through fear that they had worked badly and been a fertile source of disputes. Soon after this a resolution finally ordering that no interference in tenants' rents should be made was passed by Government. I quote from the letter of the Sadr Board of Revenue, to the Governor-General, dated 27th August, 1833, forwarding these settlements, the following paragraphs bearing on these points:—

“The rates assumed for the assessment of the Government jama have been fixed by the tahsildars, under the superintendence and check of the Collector. We are inclined to think these rates are in a great measure fictitious, being regulated probably by the processes well known to revenue officers, and the pattas according to these rates have been granted to every resident cultivator, whether ryots or pattidar, and a *kabuliat* received in exchange, yet no real alteration has, we believe, been introduced into the practice that prevailed in respect to the adjustment of rents between landlord and tenant. When lands are occupied by a class of ryots who, though they possess no share in the *biswa* interests, have, nevertheless, a title not to be disturbed in the occupancy of their lands, the rates payable by them might be limited to such as would fall by a *bachh* or general distribution of the Government jama, with the *malikāna* and charges of management superadded, on the lands and cultivation at the time of settlement. If such were declared to be the limit of assessment on lands occupied by hereditary ryots, the court would be possessed of a rule, to which they could at all times refer, for the adjustment of disputes regarding rents between *malguzars* and cultivators of this description. The rule in the regulations of 1793 which restricted the demand of zamindars on *khudkasht* ryots to *pargana* rates failed to afford the protection that was intended to be given to this class of people against excessive exactions because no schedules of such rates existed.

“Estates in the district of Agra, except such as have fallen into the hands of purchasers, seem to be generally, if not universally, of the *pattidari* character. The main characteristic of this tenure does not seem to have been distinctly perceived by the Collector, for if it had been, it may be presumed that he would have been less disposed to listen to the claims of parties out of possession to fractional interests in such estates, and more studious to form a correct record of the lands composing the separate properties or *pattis* than he has been; at all events that he would have abstained from fixing the rates of rent to be paid by the *pattidari* cultivators, the effect of such measure being to convert at once a *pattidari* estate into a *zamindari*. By a *pattidari* estate is meant one wherein the proprietary interest consists mainly in the right to hold certain lands at *bachh* rates, whilst by a *zamindari* is meant an estate wherein all lands are held at rates intended, in the aggregate, to comprehend the whole rent, and the surplus over the Government jama is divided amongst the proprietors.

“The claims that have been disposed of by the Collector in the course of his proceedings are of the following character:—

“1st. *Lambardars* having sold an estate without the admitted concurrence of their *pattidars*, the latter have claimed to be replaced in possession of the share of the right and interest which appertained to them previous to the transfer.

“2nd. A fractional interest—a third for instance—has been claimed in a *pattidari* estate, the parties having previously been in possession of nothing more than certain

lands forming no fixed or recorded proportion of the whole rakba, for which they paid a portion of the general jama regulated by the village bachh. The Collector has declared the parties entitled or not to the fractional interest sued for, whilst nothing more, in our opinion, ought to have been enquired into or recorded than the existing state of land occupancy, and the mode in which proprietary profits had been enjoyed. To award to a party a fractional interest in a pattidari estate when land is not possessed by that party to the extent of the fractional share is pretty sure to subvert the tenure if practical effect be given to the award. The re-allotment of lands in such estates according to fractional shares, as has been sometimes attempted, always produces great confusion.

"3rd. Parties never having occupied land in a pattidari village, or enjoyed a share of the proprietary profits, have claimed to be put in possession of an interest, expressed in the fraction of a bigha, on the ground of right by inheritance.

"4th. Muáfi estates being measured, and the rents payable by the cultivators to the muáfídar being fixed by the Collector, disputed claims to the enjoyment of the proceeds by those connected with the muáfi interests have been heard and decided on by that officer.

"None of these questions will be in future cognizable by the Revenue authorities. The decisions that have been already pronounced, and to which effect has been given, must, we presume, stand till reversed by the courts."

Next, coming to the system of assessment followed by Mr. Boddam. The survey was made by amíns and appears to have been the first regular survey made, for the results of it brought out most startling differences when compared with the old kanúngo *mawazana* papers—differences which neither zamáfídar nor kanúngos could explain. The Board of Revenue in fact hardly considered the survey trustworthy, though they thought the assessment might be passed. The nominal method of assessment was to classify the land of a village into wet and dry, subdividing each into three classes. The gross produce of each class was then estimated by the tahsílídar, kanúngos, and zamáfídar; the value of this produce settled by the price-list of the previous ten years and of the value of the gross produce—two-fifths in the case of wheat and barley and half in the case of other crops taken as the Government share. This gave the total assets, and from this ten per cent. was deducted for calamities of season. This gave the rent-roll at which tenants' rates were fixed, the Government demand being found from this by making certain deductions, the rate of which varied in every village. I say this was the apparent method, but that it was not the real one is very clear from the face of the statements themselves, and in fact the Board of Revenue do not shrink from openly saying that the statements were mere office productions:—

"It has been already observed that the rates are in all probability fictitious, being fixed by first determining the amount of the Government jama, then adding thereto the percentage which it was determined to deduct for malikána and village charges, and distributing the whole on the land under cultivation. This is presumed to have been the Collector's course of procedure, because it is scarcely possible to assess rates in detail, and in that manner obtain a rental such as in every case the proprietors will acknowledge to be correct. The sum actually engaged for is almost always more or less the result of negotiation with the parties interested, and certainly cannot in all cases be determined with such nicety by the revenue officers, as it seems to have been in these proceedings by the Collector of Agra. When rates are to be fixed by the officers of Government, nothing can be fairer than to limit them in the aggregate to the Government jama, malikána, and general village charges.

"Supposing the rates to have been regulated in the way we have suggested, no other objection to such an arrangement would occur to us than that an appearance of reality is given to that which is in fact fictitious.

"The deduction made on account of "hak lambardari" being one not recognized by the regulations, and being in our opinion quite superfluous, we propose to direct that no such deduction be made at a future settlement.

"The amount granted on account of malikána in the Agra settlements is one-sixth of the net rental, whereas by clause 2, section 7, Regulation VII. of 1822, proprietors are entitled to a profit of 20 per cent. on the jama in all cases where an increase of revenue is taken. The Commissioner has recommended that the malikána should be increased to that percentage, and we should have no hesitation in supporting this recommendation if we had not the impression that the real operation performed by the Collector was confined to assessing a suitable jama on each estate, charges of collection, "hak lambardari," and malikána being a sum added thereto merely for the sake of account; and of course, if one-fifth rather than one-sixth had been judged the proper proportion to add for this purpose, it would have been added without affecting the assessment intended for the estates.

"We beg to recommend the confirmation of the settlements as they have been reported by the Collector, and if it should appear hereafter that our view of the Collector's mode of assessing rates is erroneous, or that the proprietors are entitled to demand a larger percentage on account of malikána than has been given to them, the requisite measures may be taken for revising the assessments according to the Commissioner's suggestion. The accounts up to the present time must be adjusted by the engagement that exists."

The only other question raised at this settlement was regarding muáfi patches, but the results of the discussion are of no importance. These settlements were confirmed for a period of 20 years by the Governor-General in Council in G. O. No. 1149 of 30th September, 1833. This Government order strongly condemns Mr. Boddam's interference in the internal management of the village communities, but regarding the assessment says:—

"Though the calculations on which the rates are professed to have been fixed are doubtless fictitious, there is reason to believe that the real assets have been as well ascertained by the other means at the command of the tahsildar and the Collector as could be expected, and that the amount of the Government demand, with reference to those assets in each estate, is moderate and yet sufficient."

The result of his proceedings was to raise the demand of these tahsils to Rs. 4,85,144, part of which must be credited to resumed revenue-free grants.

Mr. Boddam's settlement was not, however, destined to last even ten of the 20 years it was sanctioned for; except in Gobardhan, it was undoubtedly a heavy assessment. The heavy assessment in Kosi began to tell in 1832-33, when a balance of nearly Rs. 8,000 occurred, and the increase of Rs. 8,975 had to be reduced permanently by Rs. 1,730. In Sonkh, too, this settlement had to be revised and the increase of Rs. 4,653 permanently reduced by Rs. 848; but even this was not enough, and Mr. Tyler had to grant still further remissions. As a consequence, a revision of all Mr. Boddam's assessments was made by Mr. Tyler under Regulation IX of 1833.

It was Mr. Tyler, therefore, who made the last entire settlement of this part of the district. Abandoning the plan of a village settlement, which (g) Settlements under Regulation IX of 1833. he had favoured on the other side of the river, he divided the villages into classes and took pargana soil rates. In the parganas first taken up the system was rudimentary. Thus in Sahar and Shergarh he had only one wet rate, and two dry rates for the uplands, and two wet and two dry rates for the Jumna valley; no difference of home and outlying lands being admitted. But in his later work, as in Muttra, he extended this system so as to have twelve rates for the upland soils and

three for the khádar. Apart from this there is nothing in his mode of making the settlement to merit remark. His assessment was—

		RATE ON THE THIRN			
		Cultivated acre.	Assessable acre.	Total acreage.	
	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Kosi ...	1,63,803	2 1 8	1 15 0	1 11 3	
Sahar ...	1,33,963	1 13 4	1 8 10	1 4 10	
Shergarh ...	41,699	1 14 7	1 7 2	1 3 1	
Sonkh ...	68,790	2 8 4	2 2 0	1 15 6	
Aring ...	48,545	1 12 11	1 5 7	1 2 10	
Gobardhan ...	22,489	2 1 9	1 10 1	1 6 5	
Muttra ...	88,882	1 14 6	1 9 7	1 8 10	
Sonsa ...	29,147	2 1 0	1 9 11	1 2 5	
	<u>5,46,806</u>				

a rise of over Rs. 60,000. The settlement was sanctioned by G. O. No. 497, dated 2nd April, 1842.

### III.—Fiscal history of the expired settlement.

The last settlement was in progress and all but ended when the great famine of 1837-38 (1245 fasli) came. At that time Sádabad and Sáhpan (a) Famine of 1837-38. had been settled seven years, Mahában five years, Mát and Noh Jhál three years, Sahar, Shergarh, and Kosi one year. In Aring and Sonkh the new revenues were to come into force in the very year of the famine, and Muttra, Gobardhan, and Sonsa were untouched. A severer test for a settlement could not be imagined than this the greatest famine of which we have any record, and it speaks well for the equity of the assessment that it stood the test as well as it did. Writing of this district early in 1838, Mr. R. Hamilton, the Commissioner, said:—"In the district of Muttra I was surprised to find such an extensive waste. From Mursan, passing through a few villages of Sonai, the centre of Ráya, a few villages of Mát and of Mahában, the crops were scanty, the soil dry, and cultivation only in the immediate vicinity of the pukka wells. I should not suppose that the produce on the irrigated land equalled an average even when I saw it, and since then the difficulty of feeding cattle has greatly increased, as well as the labour of irrigation. Around Muttra the produce in the garden cultivation came up to perhaps ordinary years, but the people were almost in despair from the wells fast turning so brackish and salt as to destroy rather than refresh vegetation. All of the Aring and Gobardhan parganas which came under my observation was an extensive arid waste, and for miles I rode over ground which had been both ploughed and sown, but in which the seed had not vegetated, and where there seemed no prospect of a harvest. The cattle in Aring were scarcely able to crawl, and they were collected in the village and suffered to pull at the thatch, the people declaring it useless to drive them forth to seek for pasture. Emigration had already commenced, and people of all classes appeared to be suffering from the drought and the high price of grain." The difficulty was met by extensive remissions of revenue. In Mr. Girdlestone's report the total for the district is given as Rs. 3,03,790 up to 1246 fasli, I have been able to trace those in the parganas of Kosi, Shergarh, Sahar, Sonsa, Sonkh, Gobardhan, and Muttra, and find that they amounted to—

1245 fasli, Rs. 1,38,099 (Rs. 62,189 for Kosi alone).
1246 " " 15,818
1247 " " 1,270

Rather more than half the remissions were therefore given in these seven parganas, while those for pargana Mát alone were Rs. 22,789 more. In spite of these liberal remissions there were several sales for arrears of revenue in Muttra and Cháta.

But it was in the talúkas of the Mahában tahsil that the effect of this famine of 1837-38 was felt with the greatest intensity. The total remissions here seem to have been Rs. 19,836-3-0, but of the years for which these were made I have no detail; still, as far as I can

(b) Revision of the assessment of the Mahában talúkas.

judge, the greater part of them were for the year 1245 fasli itself ; and as the demand was rather over Rs. 1,14,390, these remissions were not on as liberal a scale as in Kosi. A revision of the whole settlement was, however, considered necessary and ordered in 1840.

The assessments revised were those of talúkas Ar Laskarpur, Sonkh, Madim, Sonai with Aira Khera, Ráya and Dunetia, and of several miscellaneous villages, chiefly those that came to Mahában from Mát. All had suffered considerably from the great drought and the succession of bad seasons which followed. Aira Khera and Sonai were also suffering from over assessment, while in Ar Laskarpur and Sonkh the underproprietors were without any resources to fall back on, inexperienced in revenue management and harrassed by litigation, the natural result of undefined rights. Madim was however the worst, as the brackish character of the water aggravated by the bad seasons had reduced the cultivators to great distress. In Ar Laskarpur and Sonkh Mr. Tyler considered that the biswadars should be excluded for their wilful default and mismanagement, and the Mursan Rája, the talúkdar, admitted as unconditional farmer for 10 years ; but this was disallowed by G. O. No. 4499 of 12th October, 1844, and the biswadars were readmitted. The result of the revision was a permanent reduction of Rs. 3,375 in the assessments of Aira Khera and Sonai, of Rs. 771 in Ráya, of Rs. 602 in Madim and of Rs. 291 in the miscellaneous villages. No change was found necessary in talúka Dunetia ; while the case of talúkas Ar Laskarpur and Sonkh was met by a temporary reduction, the assessment reverting by progressive additions to the old demand. The occasion was taken to make a survey of the area and prepare a fresh record of rights. In five villages of talúka Ar Laskarpur, in which the Rája of Mursán was, on the loss by the underproprietors of their rights, admitted to engagement as full proprietor, the demand was increased by Rs. 490-6-0, while the same cause resulted in an increase of Rs. 28 in talúka Sonkh. In Tehra, for the same reason, the demand has been raised by Rs. 167.

The rent-rates used by Mr. Tyler in this assessment are interesting, and I give them here :

	1st class.				Wet.		Dry.	
					Rs. a. p.		Rs. a. p.	
Bára	...	...	...	...	7	14	11	3 9 0
Manjha	...	...	...	...	6	9	2	2 15 11
Barha	...	...	...	...	5	3	5	2 9 5
2nd class								
Bára	...	...	...	...	6	9	2	2 9 2
Manjha	...	...	...	...	5	3	3	2 3 2
Barha	...	...	...	...	4	6	2	1 11 7
Khadar, 1st class...	...	...	...	...	5	9	9	...
Do., 2nd do. ...	...	...	...	...	3	8	2	...

All Dunetia, Ar Laskarpur, Madim, and the miscellaneous villages fell in the 2nd class ; the villages of Ráya, Sonai, and Aira were divided according to their qualities between the two. The revenue-rates were in the zamíndari villages 30 per cent., and in the talúkdari 38 per cent. below these. To compare these rent-rates with those used at this settlement I have taken Mr. Tyler's areas of each class of soil, and working out his all-round rate, compared it with the all-round rate for the same soil of the present settlement. I have omitted the cases of dry bára and manjha, as they have not been used at this settlement. The result is :—

Class of soil.					All-round rate at Mr. Tyler's revision.	All-round rate at this settlement.	Rise per cent.
Bára, irrigated	...	...	...	...	7.1	10.6	49
Manjha, do.	...	...	...	...	5.8	7.9	36
Barha, do.	...	...	...	...	4.7	5.7	21
Do., dry	...	...	...	...	2.0	3.6	80
Khadar	...	...	...	...	4.6	6.6	43

The larger rise in the home land rates as compared with the outlying is partly due to the restriction of those classes at this settlement to the really good fields. The greater differentiation of soils has allowed much of the inferior land formerly included in the bára and manjha to be put with the superior classes of outlying lands. The proportion of the various soils then and now is thus :—

Class of soil.							Then, per cent.	Now, per cent.
Bára	...	...	...	...	...	...	11.9	5.1
Manjha	...	...	...	...	...	...	16.8	13.1
Barha, irrigated	...	...	...	...	...	...	34.1	61.8
Do., dry	...	...	...	...	...	...	37.2	20.0

Just as the Kosi tahsil was recovering from the effect of the famine it was nearly overwhelmed by another almost crushing disaster. The rains of 1840 were very partial and the kharif all but failed, so that of the autumn instalments Rs. 33,171 was allowed to stand over to the spring; but the winter rains never came, and the only crops were in the irrigated land. Just as these crops were in ear, on 1st March, 1841, a hailstorm of unprecedented violence swept through the centre of the pargana from Hatana, Kotban, and Amrala on west to Khairat on the Jumna on the east, irretrievably destroying more than half the standing crops and injuring much of the remainder. In consequence more than half of the demand of the year (Rs. 83,679) had to be remitted.\* The successive years of drought that followed gave the pargana no time to recover itself, and the Board held that its productive power had so deteriorated that a revision of the settlement was absolutely necessary (letter No. 315 of 18th September, 1842). This was carried out by Mr. Tyler, who reported the result in his letter of 25th July, 1844. He found that the pargana was so exhausted by the succession of calamities, and the capital of the zamindars and cultivators so extensively destroyed, that a remission of the whole revenue for one year would not have repaired the losses. The balances from

	Rs.
1837-38	62,711
1838-39	459
1839-40	600
1840-41	83,679
1841-42	71,656
1842-43	4,848
1843-44	37,394

the year of the famine are given in the margin, and thus close on 30 per cent. of the demand for these seven years remained uncollected. He found that the number of ploughs had fallen by 1841, or over 40 per cent., while cultivation had decreased 13,091 acres, or nearly 20 per cent. Mr. Tyler considered that the collections during the good years of 1838-39 and 1839-40 showed that the assessment was not too high in favourable seasons, but he considered that temporary relief was necessary, and that a few of the heaviest assessments should be reduced. He remeasured the pargana, as the then patwaris' papers only showed the area on which the bachh was paid and not that under cultivation, and fixed on new rates more nearly approaching those used by him formerly in Sahar. The result of his proposals was—1st, to remit outstanding balances; 2nd, to give a permanent decrease in the revenue of 36 villages amounting to Rs. 7,549; and 3rd, to give a progressive revenue in these thirty-six villages and in ten others, which, beginning at Rs. 29,972, below the former demand, ended at the seventh year (1850-51) in a revenue of Rs. 1,55,162. By their letter No. 338 of 20th September, 1844, the Board of Revenue considered these terms even were not liberal enough, and directed a further reconsideration. In his letter of 26th October Mr. Tyler proposed still further reductions, amounting to Rs. 2,438 in the first year of the progressive settlement, and a further final permanent decrease of Rs. 3,138 in the last. The demand of Kosi was therefore reduced to Rs. 1,52,024. These proposals were sanctioned by G. O. No. 833 of 3rd March, 1845.

The justice and fairness of the reductions has been amply proved by the prosperity of the pargana since this date. The revision of records from 1848 to 1850 resulted in no change in the demand of the district. After 1845 a series of bumper harvests set in and lasted till the mutiny. This even,

\* The village of Kosi in the south of the Muttra pargana was the only other village much injured by this storm, and Rs. 515 of its revenue was remitted.



great though it was in its indirect effects, had very slight direct influence on the fiscal history of the district. There were several farms in Sádabad for arrears of the mutiny year, and some villages in Noh Jhíl were sold for their inability to pay the mutiny fine which was imposed in proportion to the revenue, while the villages of several Gújar communities were confiscated for rebellion. Apart from this, the mutiny left no trace on the proprietary or cultivating body. The famine of 1860-61, which followed so rapidly on its heels, found the district so improved in every way since the settlement that it did not leave any permanent mark on it, and the remissions did not amount to more than Rs. 2,000—a striking contrast to the famine of 24 years before. Since then the great rise in prices caused, among other things, by the improvement in the means of communication has materially benefited the whole agricultural community.

The sales for arrears of revenue during the currency of the settlement have been—

(e) Sales for arrears of revenue during the period of settlement. *1st period of twelve years from last settlement to the revision of records—*

Name of pargana.							Acres.
Sáhpau	...	...	...	...	...	...	2,565
Sádabad	...	...	...	...	...	...	4,258
Mahában	...	...	...	...	...	...	5,970
Mát	...	...	...	...	...	...	380
Noh Jhíl	...	...	...	...	...	...	4,410
Muttra	...	...	...	...	...	...	30,531
Chháta	...	...	...	...	...	...	14,610
Kosi	...	...	...	...	...	...	1,803
Total							64,467

*2nd period of seven years, revision to mutiny—*

Mahában	...	...	...	...	...	...	780
Noh Jhíl	...	...	...	...	...	...	735
Muttra	...	...	...	...	...	...	903
Total							2,408

*3rd period of twenty years, mutiny to the present time—*

Mahában	...	...	...	...	...	...	3,895
Mát	...	...	...	...	...	...	3,689
Muttra	...	...	...	...	...	...	2,330
Total							9,914

The extensive sales in Muttra and Chháta during the first period have already been explained as due to the great famine.

(f) Changes in the demand during the currency of the settlement. The remaining changes in the demand during the currency of the settlement, excepting temporary reductions given in lieu of mutiny services, are as follows :—

*Additions—*

					Rs.	a.	p.
Resumptions of revenue-free land	...	...	...	...	23,994	12	0
Assessment of alluvion	...	...	...	...	5,085	0	0
Total					29,079	12	0

*Reductions—*

Land taken up for roads	...	...	...	...	1,395	11	6
Ditto canals	...	...	...	...	2,303	0	0
Ditto customs line	...	...	...	...	260	0	0
Ditto railways	...	...	...	...	243	0	0
Land transferred to another district	...	...	...	...	39	8	0
Diluvion	...	...	...	...	5,471	4	0
Reductions for overassessment	...	...	...	...	4,882	10	8
Withdrawal of licenses to make salt	...	...	...	...	364	0	0
Land assessed at last settlement and since released free of revenue...	...	...	...	...	2,631	0	0
Remission on land declared to be nazul	...	...	...	...	15	0	0
Total					17,405	2	2

During the settlement the demand has thus increased by Rs. 11,674-9-10, chiefly from resumptions of revenue-free land.

#### IV.—Transfers.

Under the head of the different castes I have already discussed the variations in the position of the chief landholding tribes. So minute is the subdivision of property that I have found it a matter of great difficulty to present this in a tabular form. I however append two statements: the first shows the area transferred from the persons whom we found in possession when we conquered the country, under the head of the transfer to which it was last subject; and another statement showing the area transferred from the persons with whom the last settlement was made, also under the head of the transfer to which it was last subject.

*I.—Area transferred from the persons whom we found in possession at the conquest, under the head of the transfer to which it was last subject—*

	Acres.
Private sale ... ..	150,381
Auction in execution of decree ... ..	67,843
Do. for arrears of revenue ... ..	50,982
Confiscation ... ..	12,305
Mortgage ... ..	71,639
Gift ... ..	43,057
Total ... ..	396,307

*II.—Area transferred from the persons with whom the last settlement was made, shown under the head of transfer to which it was last subject—*

	Acres.
Private sale ... ..	116,480
Auction in execution of decree ... ..	59,112
Do. for arrears of revenue ... ..	39,203
Confiscation ... ..	12,298
Mortgage ... ..	63,205
Gift ... ..	38,203
Total ... ..	328,496

Thus, about 42 per cent. of the area has been permanently transferred from the persons whom we found in possession of the district at the conquest, while rather over one-third of the area has been permanently transferred from those persons with whom the last settlement was concluded. The area transferred in Ohhāta and Kosi has been swollen by the confiscation of the Gūjar villages for mutiny; those of Muttra and Ohhāta by the extensive sales for arrears of revenue after the great famine and the Lala Babu transfers; and those of Muttra and Noh Jhīl by the large area given to temples by the local Seth family. Apart from these exceptional causes, the transfers in these parganas have been comparatively few. In the others they have been extensive, especially in Sāhpau, where over half the area has been permanently transferred from those persons with whom the last settlement was concluded.

## CHAPTER IV.

### HISTORY OF SETTLEMENT OPERATIONS.

THE notification putting Mr. McConaghey in charge of the Muttra Settlement was issued in October, 1871, but that officer did not take over charge until the end of April, 1872, and the work did not commence in earnest until the following cold weather. From that time it continued on without intermission until March, 1879. It, therefore, (including Jalesar) lasted 6½ years, and was finally closed by G. O. No. 468, dated March 1st, 1879, from the end of March of that year.

The steps of the different operations connected with the settlement, with the years in which they occurred, are as follows :—

Tahsil.	Season of survey.	Preparation of rough records.	Inspection.	Declaration of assessment.	Year for which vernacular record was filed.	Number and date of Government order closing the settlement.
Sádabad ...	1871-72 ...	1872-73 ...	1873-74 ...	June, 1875...	1875-76 (1283) ...	No. 1982A., dated 20th November, 1876.
Mahában ...	1872-73 ...	1872-73-74, ...	1873-74-75.	„ 1876...	1875-76 (1283) ...	No. 1602A., dated 10th August, 1877.
Muttra ...	1873-74 ...	1874-75 ...	1874-75 ...	Ditto ...	1876-77 (1284) ...	No. 1739A., dated 20th June, 1878.
Chháta ...	1874-75 ...	1875-76 ...	1875-76 ...	March, 1877,	1877-78 (1285).	} No. 468, dated March 1st, 1879.
Kosi ...	1874-75 ...	1875-76 ...	1875-76 ...	June, „	1877-78 (1285).	
Mát-Noh Jhíl ...	1873-74-75, ...	1875-76 ...	1876-77 ...	March, 1878,	1877-78 (1285).	

The officers who took part in the work were the following :—

Appointment.	Name of officer.	From	To	Duration of office.	
				Y.	M.
Settlement Officer ..	Mr. M. A. McConaghey,	April, 1872...	October, 1876...	4	6
Ditto ...	„ R. S. Whiteway ...	October, 1876...	March, 1879...	2	6
Assistant Settlement Officer.	„ M. Reade ...	„ 1872...	February, 1875...	2	4
Ditto ...	„ R. S. Whiteway ..	February, 1875...	October, 1879...	1	6
Deputy Collector ...	„ Inayat Hussain ...	October, 1871...	December, 1872...	1	3
Ditto ...	„ Inayat Ali ...	„ Ditto ...	July, 1874...	2	9
Ditto ...	„ Debi Din ...	„ December, 1872...	* November, 1877...	4	3
Ditto ...	„ Kamal-ud-din ...	„ February, 1874...	„ 1875...	1	9
Ditto ...	„ Fazl Azím ...	„ October, 1874...	„ April, 1875...	0	6
Ditto ...	„ Inam ul-lah Khan ...	„ June, 1875...	„ October, 1878...	3	4
Ditto ...	„ Ali Muhammad Khan...	„ November, 1875 ...	„ November, 1878...	3	0

\* Absent 9 months on leave and deputation.

The work which fell to the lot of each of the above was, in addition to case work :—

*Mr. McConaghey*—Inspected and assessed the whole district except Mát-Noh Jhíl ; commenced and supervised all the preparation of the rough records ; took under his immediate charge the demarcation of the soils of all the parganas he assessed, and also the preparation of the rough records of Kosi, and filed the records of rights of Jalesar and Sádabad.

*Mr. Reade*—Was in immediate charge of the out-door establishments for the preparation of the rough records, &c., of Jalesar, Sádabad, Mahában, and half Muttra. The impress which this work received from his mind remained to the completion of the district.

*Mr. Whiteway*—Inspected and assessed Mát-Noh Jhíl ; was in immediate charge of the preparation of rough records of half Muttra, Chháta, and Mát ; assisted Mr. McConaghey in the demarcation of soils and assessment of pargana Chháta, and superin-

tended the fairing and filing of the record of rights of Mahában, Muttra, Chháta, Kosi, and Mát.

*Inayat Hussain*—Was employed on boundary disputes.

*Inayat Ali*—Attested Jalesar and part of Mahában.

*Debi Din*—Was in charge of the patwáris' papers of Mahában, Muttra, and part of Sadabad.

*Kemal-ud-din*—Was chiefly employed in Muttra.

*Fazl Azim*—As long as he was in the district, superintended the papers of Jalesar and Sádabad.

*Inam-ul-lah*—Was in immediate charge of the papers of Jalesar and Sádabad when they were filed, and superintended the preparation of the patwaris' papers for Mát, and finally attested them.

*Ali Muhamad Khan*—After being employed on the Muttra papers, took up the patwáris' papers of Chháta and Kosi, and superintended them until the final attestation was completed.

CHAPTER V.

ASSESSMENT.

Areas of present settlement—(a) Total area ; (b) Revenue-free ; (c) Barren waste ; (d) Groves ; (e) Culturable waste and fallow ; (f) Increase in cultivation ; (g) Increase in irrigation —Increase in population—Rise in all-round rent-rate—Effect of the canal in raising rents—Prices—Increase in the selling value of land as shown by the prices realized at transfer—Natural soils—Artificial soils : (a) Irrigated and dry ; (b) Manured and unmanured—Demarcation of soils—Method of arriving at soil rates—Assessment—Line of fluvial action—Dates for the payment of instalments of rent and revenue—Distribution—Revenue declared as compared with half-estimated assets—Incidence of the demand of the expired settlement as compared with that now imposed—Cost of the settlement—Rental of the district after completion of enhancements—On whom does the burden of the settlement fall—Suspension of powers under section 35 of Act XVIII. necessary during general distress.

Areas of present settle- The following statement shows the distribution of the ment. district area at present :—

Total area.	NOT ASSESSABLE.					ASSESSABLE.						
	Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Out of cultivation.		Cultivated.			Total assess-able.
							Culturable waste.	Fallow.	Irrigated.	Dry.	Total.	
Acres.												
854,439	77,189	8,571	7,195	36,518	129,473	4,120	64,081	7,472	350,586	298,707	649,293	724,966

The total area furnished by the Survey Department is 861,740 acres, or 1,346.47 square miles ; this varies from the above by 7,301 acres. The (a) Total area. greater part of this area is that of the bed of the Jumna not contained in the total above given ; the remainder arises from the different methods of calculation. The area I have given is calculated on the totals of the field areas ; that of the Survey Department is deduced from the mapped areas ; slight differences, which added together become considerable, must therefore exist.

The areas of the last settlement are so imperfect that they are useless for comparison. In Mahában they are altogether wanting, and nowhere do they contain the areas of the entire muáfi villages. In the pargana reports they will be found as far as they exist ; here the salient points apparent on the comparison of those of them that are forthcoming with those of the present settlement only will be noticed.

In the printed memoir prepared in 1847-48 the areas of the former year are given as follows :—

Total area in acres.	Revenue-free area in acres.	Barren in acres.	Culturable waste in acres.	Cultivated in acres.
846,121	83,902	93,856	111,551	554,812

and in a statement prepared by Mr. Alexander in 1852 as follows :—

Total area in acres.	Revenue free in acres.	Barren in acres.	Culturable waste in acres.	Cultivated in acres.
848,950	88,768	75,642	76,142	608,398

The total area now varies very slightly, about one per cent, from that of the last settlement n Sáhpaú, Sádabad and Muttra (khalsa only). In Chhátá it is difficult to arrive at any result, as it cannot be found what revenue-free areas were then included and what excluded. In Kosi the difference is about 2 per cent., chiefly from changes in the course of the river. In Mát it is over 4 per cent., and in Noh Jhíl nearly 5 per cent. The large river-face and the area thrown up opposite several of the villages

in part accounts for this. Mr. Tyler considered the Mát measurements most satisfactory; but speaking of Noh Jhíl he says :—"The result of the field measurement in the 90 estates is not so satisfactory as in pargana Mát, in which it tallied, as nearly as possible, with the professional survey. The decrease, on the aggregate, of cultivated is 4,582 acres, or 8 per cent. ; on the total area the decrease is 3,442 acres, or about 4½ per cent. In the details, however, the difference is much greater, even as high as 10 per cent. On testing the field measurements I found the khasras to be correct, and was much puzzled to account for the difference, when it occurred to me to measure the *jarís* by which the measurements had been effected, and it was then explained, as on an examination of them 11 *jarís* were found to be several inches too long, and on a calculation they were found to give a decrease varying from 2 to 4 and 4½ per cent., and an average of about 3 per cent."

The area now returned as revenue free is 77,189 acres, or about 120 square miles; this is 9 per cent. of the whole area. The Muttra pargana with 19·6 per cent. and 21 whole villages revenue free stands first; next comes Chhátá with 13·4 per cent. and 14 whole villages paying no revenue to Government; Mahában has 10·1 per cent. and 14 whole villages muafi, Mát is the only other pargana with an entire village released, this pargana has 3·7 per cent. revenue free. The proportions in the other parganas are--Sáhpau 7 per cent., Sádabad 5, Kosi 1 and Noh Jhíl 7. As no measurements were made at last settlement of the entire revenue-free estates the changes cannot be noted; but during the currency of it, besides the numerous small patches that were resumed, three whole villages, Jagdispur, Jataura, Nagla Mir Bulaki, have been resumed in Mahában; Aurangabad (for mutiny), Aruki, Lárpur, Tehra, Ahliaganj, Dhaurera Kotá, and Jhapra in Muttra; Syara in Chhátá, and Hauli Guzar and Jarára in Mát; while Mundesi of Muttra and Ajhai Bazurg of Chhátá, which were resumed at last settlement, were after that date released by the Special Commission. At this settlement the resummptions have been very few and confined to small patches and the village of Bhagausa of Muttra.

The total under this head is 6·1 per cent. of the whole area. A very small proportion of this, one per cent. of the whole, is covered with houses, 8 per cent. occupied by water (not including, of course, the bed of the Jumna), and 4·3 per cent. barren waste. The greater part of the barren waste is Jumna ravines; on the left bank of the river are a few slightly usarish patches, but there are no usar plains in the district.

The area under groves is very insignificant, being 4,120, or 5 per cent. of the whole area. For this head statistics of the last settlement are more imperfect than for any other; they fail entirely in Mahában, Muttra, Chhátá, and Kosi; while in Mát-Noh Jhíl, where only 5 acres are recorded under groves, the entry seems doubtful; oddly enough, it was here mixed up with forts and nalas. In Sáhpau the area has risen from 81 acres to 223, and in Sádabad from 218 acres to 296 acres.

5 per cent. of the area is recorded as culturable waste and 9 per cent. as fallow. Both the culturable waste and the fallow are largest in Noh Jhíl, where the former is 12·7 per cent., and the latter 3·6 per cent. of the area. This arises chiefly from the Noh Jhíl itself and partly from the large khádar area. The other parganas stand as follows :—

				Culturable waste, per cent.	Fallow, per cent.
Sáhpau	...	...	...	4·1	2
Sádabad	...	...	...	3·9	4
Mahában	...	...	...	7·0	4
Muttra	...	...	...	9·2	6
Chhátá	...	...	...	9·8	5
Kosi	...	...	...	8·7	9
Mát	...	...	...	7·0	2·1

The tahsils with the largest area of khádar have, of course, the greatest area of culturable waste and of fallow land. Much of the fallow in the Jumna valley is very precarious, and though the soil is good, the crop and even the land is liable to be swept away by the river. In the uplands the area of culturable fallow is nowhere large, but consists of patches isolated in the centre of cultivation. The changes under this head, during the period of settlement, are too nearly connected with the following to be discussed separately.

There are two previous periods for which I have statistics—namely, last settlement and the revision of records. The measurement of this (f) Increase in cultivation. last took place from 1848 to 1850, and, therefore, it marks, roughly speaking, the end of the first third of the period of settlement. The following statement shows the rise per cent. for each pargana :—

		Percentage of rise from settlement to revision.	Percentage of rise from last settlement to this one.
Sáhpau ...	...	8	5
Sádabad ...	...	6	12
Muttra ...	...	15	27
Chhátá ...	...	13	22
Kosi ...	...	...	20
Mát ...	...	10	13

In Mahában the statistics of part of the villages only have been found ; they give a rise of 11 per cent. in the cultivation from the settlement to the revision, and of 6 per cent. since : this is probably closely approximate to the average of the tahsíl. The returns of 1847 and 1852 cannot be compared with the present ones on account of the changes under all heads from the resumption of revenue-fee lands ; but after a careful review of the returns of the latter year as compared with those of the former, Mr. Alexander concluded that in the five years the cultivated area had risen by 9 per cent. over the whole district. The variations in the increase during the whole term of settlement have been great in the different parganas, but the rise has been greatest in those on the right bank of the river. One similarity, however, runs through the whole—the greater part of the increase in all cases took place in the first third of the period of settlement.

The irrigation statistics, similarly treated, show the opposite result. The greatest (g) Increase in irrigation. increase has been in the last two-thirds of the settlement, and the proportion is much greater than the mere longer lapse of time would account for. The explanation is probably simple, and is, I think, that when first the burdens of the new settlement were imposed, they were met by breaking up the waste land ; but as the margin of waste got smaller, presumably only the worst lands, which would hardly pay the cost of cultivation, were left untilled. Population still pressed harder on the land, and recourse was had to some other means of increasing its productiveness. Cultivation became closer and more careful and irrigation extended. The changes proportionally in the irrigated area from last settlement to now have been—

Pargana.	Proportional change in irrigated area from settlement to revision.		Proportional rise in irrigated area from last settlement to now.
	Increase per cent.	Decrease per cent.	Percentage.
Sáhpau ...	...	11	20
Sádabad ...	10	...	36
Muttra ...	8	...	108
Chhátá ...	54	...	141
Kosi ...	...	...	53
Mát ...	14	...	71

In Mahában the rise from revision to now has been 64 per cent. Sáhpau is the only pargana in which the area recorded at last settlement as irrigated was more than that recorded at the revision of records ; Sáhpau also is the only pargana in which Mr. Tyler's assessments were very heavy. It would seem, therefore, as if in that pargana some error in the statistics then prepared had been committed.

Since 1847 there have been seven enumerations of the people, not including the one made at the present settlement, which, not being a contemporaneous one, is not admitted to comparison. In this period the transfer of pargana Jalesar to Agra has been the only change of area, but as I can exclude the population of that pargana from all save the census of 1851, I propose to do so and to leave out of count the enumeration of that year, which is of less importance as there is one both for 1850 and 1853.

The first census was not a contemporaneous enumeration, but an attempt to get at roughly what the population of the district was.

Mr. E. Thornton, Collector of the district, forwarded the statistics on 1st September, 1847, with the following remarks :—"It was found expedient to make a new census of the whole population in the district. This was effected by the tahsildárs, and they found an actual census more convenient and accurate than the plan suggested in the circular letter of 22nd October, 1846. The towns of Muttra and Bindraban, however, are exceptions to what I have above stated. In the former I carried on an actual census through eighteen of the muhallas, but not wishing to postpone the report any longer, and having recently made an accurate enumeration of the houses while effecting a revision of the chaukidari assessment under Regulation XXII. of 1816, I applied to the number of houses of the remaining eight muhallas the average obtained by dividing the ascertained population of the eighteen muhallas into the ascertained number of houses. The population of Bindraban has been given from the census made in 1844 by the Magistrate, with a slight modification which was now thought necessary."

This return was not considered satisfactory, and, being sent back, was returned, after revision, on 14th April, 1848; this revision increased the total population (including Jalesar) by 15,583. In forwarding the revised statement Mr. Thornton remarks:—

"The revision was commenced during the last cold season. While encamped in a pargana, I employed whoever might be available at the time to make a fresh enumeration of the population in as many villages as could be got through. The tahsildárs were afterwards ordered to continue the process according to their means and leisure. I made it well understood that these officers would incur no blame were the second process to bring to light errors in the former one, and I believe there has been no attempt to produce fictitious correspondence between the results of the two enumerations." The abstract of this census is as follows:—

<i>Hindus.</i>	<i>Muhammadans.</i>	<i>Total.</i>
543,688	40,017	583,705

As the cultivated area is given (including muáfi) as 627,466 acres, or roughly 980 square miles, this gives, then, a density to the square mile of cultivation of 595. Omitting Kursanda, which owed its place to its numerous outlying hamlets, the following towns are given as having more than 5,000 persons :—

Muttra ...	...	...	...	...	49,672
Bindraban ...	...	...	...	...	19,776
Kosi ...	...	...	...	...	11,711
Khairā* ...	...	...	...	...	6,927

The next enumerations were made on December 31st, 1849, and again on December 31st, 1850, by Mr. R. Alexander, then Collector. His method of procedure was as follows :—"The plan pursued was to have the form translated and put in each patwári's hands by the 25th of December, and the tahsildár was desired to provide that, through the kanúngos and other officers, every patwarí should be acquainted with paras. 137 to 143 of the printed circular. Where more than one village was under one patwári, the enumeration in the second village was to be made through his gomashta; when neither of them could be present at a particular village or nagla, the enumeration was directed to be made by the lambardar, or trader or pandit, if there resident; on failure of such residents a

\* Probably a mistake for Chháta.



tahsili official or chaprasi who was able to read and write was to be sent to supply the information and enter it into the form. The assistance of the Magistrate was obtained in securing the census in towns, through the chaukidárs and muhalladárs. As many officers as could be spared from the tahsil office were sent on the same day to partál, or test, the enumeration in different villages; and as the assistance of police jamadárs and muharrirs was obtained for the testing, very few villages were left with the census not tested." The abstract of the results is as follows:—

			<i>Hindus.</i>	<i>Muhammadans.</i>	<i>Total.</i>
31st December, 1849	...	...	601,559	47,521	649,080
Ditto, 1850	...	...	630,331	48,189	678,520

The next census was the general one taken on 1st January, 1853. This census was taken by Mr. Alexander, and his procedure did not differ from that he adopted in the censuses of 1849 and 1850. The abstract of this statement is as follows:—

<i>Hindus.</i>	<i>Muhammadans.</i>	<i>Total.</i>
668,489	55,023	718,512

Of the increase about 9,200 is due to the inclusion of the cantonment population which had been excluded from all previous enumerations. The cultivated area is given as (including muáfi) 718,512 acres, or 1,061 square miles, so that the density in 1853 of the population was 677 to the square mile of cultivation. Excluding villages whose position is due to the inclusion of the population of hamlets, the following places had then over 5,000 inhabitants.

Muttra	...	...	...	...	...	65,749
Bindrabun	...	...	...	...	...	25,230
Kosi	...	...	...	...	...	12,625
Mahában	...	...	...	...	...	7,623
Gobardhan	...	...	...	...	...	7,058
Chháta	...	...	...	...	...	6,931
Shergarh	...	...	...	...	...	5,655

From 1853 there was no census till the general one of January 10th, 1865. During this period the district suffered severely from epidemics of cholera and small-pox in 1856 and 1858, the mutiny of 1857, with the depopulation of several Gújar villages, and, finally, the great famine of 1861; the population was, therefore, found to have decreased over per 7 cent. Hindus had suffered more severely than Muhammadans. The abstract of the result is—

<i>Hindus.</i>	<i>Muhammadans.</i>	<i>Eurasians.</i>	<i>Europeans.</i>	<i>Total.</i>
613,187	54,333	69	598	668,187

The cultivated area, including muáfi, at this time was 676,175 acres, or 1,056 square miles, which gives a density of 632 to the square mile of cultivation. The places with a population of over 5,000 are the following:—

Muttra	...	...	...	...	...	57,443
Bindrabun	...	...	...	...	...	21,500
Kosi	...	...	...	...	...	12,410
Mahában	...	...	...	...	...	6,933
Chháta	...	...	...	...	...	6,060

The last general contemporaneous enumeration was that of January 19th, 1872.

<i>Hindus.</i>	<i>Muhammadans and others.</i>	<i>Total.</i>
671,660	57,920	729,580

The cultivated area was then 697,089 acres, or 1,089 square miles; the density of the population was, therefore, in 1872, 669 to the square mile of cultivation. The towns with a population of over 5,000 are the following:—

Muttra	...	...	...	...	...	59,281
Bindrabun	...	...	...	...	...	20,350
Kosi	...	...	...	...	...	12,770
Mahában	...	...	...	...	...	6,930
Chháta	...	...	...	...	...	6,720
Shergarh	...	...	...	...	...	5,305

The population, therefore, from 1848 to 1872, or in 24 years, had risen by 145,875, or 25 per cent. ; and comparing the population with the cultivation we find that the former was 13 per cent. more dense as compared with the latter than it had been 24 years before. The facts, therefore, support the assumption that during the period of the settlement the population has risen 30 per cent., or by nearly one-third. In so agricultural a district, where manufactures and industries of all kinds are wanting, the limit of density that the land can bear must some time be reached. Measures, like the introduction of the Agra Canal, will extend the limit for a time, but for a time only. The continuous growth of the population, therefore, though it may be a sign of present prosperity, is not to be viewed with equanimity.

From the peculiarities of the tenures in the Cis-Jumna parganas of this district, Rise in all-round rent- and the almost entire absence of any real rent transactions, I rate. have abandoned any attempt to trace fluctuations in the rent-rates there. In the Trans-Jumna parganas the earliest rent-rates we have are the crop rates given by Mr. Boulderson in 1815 as being the customary pargana rates for all lands held under direct management ; but as, he adds, that these rents "are much heavier than can possibly be levied from any but the very best land in the very best state of cultivation, and a consequent reduction invariably takes place in the total demand against a ryot under the head of *nábúd*," these rents are of no value. Coming to the last settlement we find an entire absence of any records of any rents at all, and the first trustworthy statements we have are the *khatiaunis* of the revision of records which were prepared from 1848 to 1850. These records were verified and are presumably accurate, but unfortunately, from the extensive destruction of them during the mutiny in the Mát tahsil, they could not be utilized there. Comparing the rents then paid in Sádabad, Sáhpaú, and Mahában with those current before this settlement began, we have the following result :—

Period.					Tenant area in acres.	Rent.	Rate.
						Rs.	Rs.
Revision of records	...	...	...	...	130,173	519,989	3.994
Preparation of rough records now	...	...	...	...	152,317	747,658	4.909

that is, a rise on the all-round rate of 22.91 per cent. The rise has, however, been very uneven. Thus in Sáhpaú it has only been 12 per cent., while in Sádabad it has been 24 per cent., and in Mahában 25 per cent. There are reasons for believing that the rental of the revision of records in Sáhpaú is abnormally heavy, as the rentals recorded in the *patwáris'* papers make out an actual fall in the rent-rate up to about 1862. This all-round rate does not, however, show the whole rise in *bond fide* rent transactions, as it includes the case of tenants with a right of occupancy whose rents are affected by many considerations ; the rents of tenants without a right of occupancy shows more accurately what may be called the rent-rate in the open market. Taking these classes separately we find the rise is as follows :—

Pargana.				Rise per cent. in the all-round rent-rate of tenants with a right of occupancy.	Rise per cent. in the all-round rent-rate of tenants without a right of occupancy.
Sáhpaú	...	...	...	11	16
Sádabad	...	...	...	18	25
Mahában	...	...	...	10	43

In Mahában the prevalence of *dharbachh* keeps down the rise in the rentals of right of occupancy tenants. Remembering the abnormal condition of the small pargana of Sáhpaú, these figures, I consider, justify the conclusion that the all-round rent

rate has, in the part of the district at least to which these statistics refer, risen from 25 to 30 per cent. since the revision of records—that is in about 28 years. It remains to be decided whether this rise has been spread evenly over the whole period, or whether the rise has been greater in any particular part of it. Here we may utilize the recorded rentals; these rentals are useless for enquiry as to the actual rent-rate of any given period as they are vitiated by so much inaccuracy and concealment; but these errors counterbalance each other, and the rent-rates of different years, when compared, show roughly the relative percentages of rise, though none are in themselves accurate in showing the real rent realized. The following are the recorded rentals in Sâhpau, Sâdabad, Mahâban and Mât—

Faali year.				Area.	Rent.	Rate.	Rise per cent.
				Acres.	Rs.	Rs.	
1264	...	...	...	248,286	9,89,939	3.766	...
1372	...	...	...	263,397	10,12,671	3.844	1.5
1280	...	...	...	272,621	11,61,995	4.273	12.9

Here, then, all the rise is practically concentrated in the last 10 years. The details of the parganas vary greatly in their proportion of rise, but in this respect they all agree that by far the larger proportion of it has occurred within the latter portion of the period.

The details are:—

Sâhpau—6 per cent. in 16 years; there was a fall of 3 per cent. in the first 6 years and a rise of 9 per cent. in the last ten.

Sâdabad—13 per cent. in 17 years, of which 11 per cent. in the last ten.

Mahâban—21 per cent. in 30 years, of which 15 per cent. in the last ten.

Mât—30 per cent. in 30 years, of which 29 per cent. in the last ten.

We may, therefore, add to the conclusion I have arrived at before this, that of the rise of the rent-rate of from 25 to 30 per cent. two-thirds at least has occurred within the last 10 years of the period. The cause of this lies in part in a fact which I have already pointed out. The first effect of the rise of the demand at the last settlement was to bring fresh land under the plough; irrigation increased at the same time, but more slowly; by the revision, however, the limit of the culturable fallow had been nearly reached, and then the pressure of the population compelled more recourse to irrigation to improve the outturn. The breaking up of the fallow by bringing inferior lands under cultivation lowers the general rent-rate, the increase of irrigation by improving the quality of what is under cultivation raises it. It took time, however, for the landlords to adapt their rents to the new state of affairs, and it was not until some years after irrigation began to spread that the effect of it on the rent-rates could be traced. But other causes have been at work: the great rise in the price of agricultural produce within the last 14 or 15 years, arising chiefly from the great improvements in all means of communication, have had their effect, if not in raising rents, at all events in enabling higher rents to be paid.

The canal has been so recently started in this district that, as yet, it has had no effect on the rent-rate. The rate of rent of any land is the result of a compromise—the landlord trying to get the greatest amount that he can, and the tenant seeking to obtain his land as cheaply as possible. Where, therefore, there is no market standard of value, the introduction of a new element in the calculation, as the canal, unsettles the old relations, and it is a matter of time for the new ones to regain a standard of equilibrium.

There are two sets of prices in this district. They are the prices which govern the transactions in the open market—that is the bazar prices—  
 Prices. and those which govern the transactions between grain-dealers

and the producers or the harvest prices. Between the two there must necessarily be a difference representing the profit to the grain-dealer after his purchase and the paying for the cost of carriage to the market. So much profit is perfectly legitimate; but the grain-dealing class composes a guild or fraternity to which not only no outsider not of the caste can get admittance, but which also monopolizes the money-lending or banking trade. Thus the members, be they Baniyas or zamindars, can compel the producer, who lives solely by the advances they grant him, to bring his produce to their shops and prevent him getting the full open market value for his goods. The cultivator is, therefore, not only crippled by the heavy interest he has to pay, but also by the low prices he is compelled to take for his produce. The harvest rates which I am about to give are those given in Mr. Allen's Jalesar settlement report as the prices obtaining "for delivery" from 1813 to 1834 for wheat and barley, and those obtaining among the Bajna Baniyas since the year 1835 for six of the chief staples of the district—wheat, barley, gram and bejhar or barley and gram mixed for the spring crops, and cotton and juar and also mung for the autumn crops; these harvest rates are those settled on the 3rd of the light half of Baisakh for the rabi past and on the 10th of the light half of Kuwar for the kharif to come. These Bajna rates are very fairly representative of those obtained by the cultivators generally. In red are printed those exceptional years in which, as we know, there have been certain exterior circumstances which have influenced the market. These are the famines and scarcities of 1813, 1818 to 1820, 1825 to 1827, 1837-38, 1860-61, 1868-69, and the mutiny of 1857-58.

*Harvest prices of wheat and barley from 1813 to 1834 for the Muttra district in strs obtainable for the rupee.*

Year.				Wheat.	Barley.	Year.				Wheat.	Barley.
1813	...	...	...	75½	94½	1824	...	...	...	42½	63.
1814	...	...	...	50	76½	1825	...	...	...	39	43
1815	...	...	...	50½	65½	1826	...	...	...	37	58
1816	...	...	...	52	75½	1827	...	...	...	27½	30
1817	...	...	...	38	50	1828	...	...	...	38½	55½
1818	...	...	...	19	27½	1829	...	...	...	33	64½
1819	...	...	...	21½	28	1830	...	...	...	43½	65½
1820	...	...	...	20	27½	1831	...	...	...	40½	50½
1821	...	...	...	35	53	1832	...	...	...	46½	66
1822	...	...	...	46½	55½	1833	...	...	...	41	52
1823	...	...	...	32	40½	1834	...	...	...	28½	38½

*Harvest prices in the Bajna market from 1835 to 1876 in strs obtainable for the rupee.*

Year.				RABI.				KHARIF.		
				Wheat.	Barley.	Gram.	Bejhar.	Uncleaned cotton.	Juar.	Mung.
1835	...	...	...	45	70	52	67½	16	60	45
1836	...	...	...	41½	60	55	57½	15	50	40
1837	...	...	...	14	17	16½	16½	12	30	15
1838	...	...	...	19	22	21	22	13½	60	45
1839	...	...	...	40	50	45	47½	14	50	40
1840	...	...	...	35	52½	47½	50	15	45	37
1841	...	...	...	35	47½	45	47	14	40	40

Year.	Rabi.				Kharif.		
	Wheat.	Barley.	Gram.	Bejhar.	Uncleaned cotton.	Juar.	Mung.
1842	34	47½	45	46	18	35	32
1843	34	57½	52½	57	14	40	37½
1844	38½	57½	55	60	13½	50	42
1845	40	60	47½	62	15	55	50
1846	40	55	50	52½	22	52½	50
1847	36	47½	45	46	22½	50	50
1848	36	50	47½	48	18	42½	40
1849	50	80	75	77½	20	60	55
1850	55	105	55	80	16	50	45
1851	50	65	60	60	17	55	50
1852	35	52½	40	45	20	35	32
1853	39	55	50	51	17	35	35
1854	30	45	37½	40	20	40	35
1855	45	70	42½	60	18	60	55
1856	37	50	37	40	15	50	45
1857	40	60	60	60	13	40	37½
1858	32	50	50	50	11	45	45
1859	32	42½	41	42	10½	40	40
1860	25	35	35	35	10	12	12
1861	16	20	20	20	11	35	30
1862	40	45	50	50	9	40	40
1863	25	35	32	32	5	30	30
1864	23	33	32	33	9½	34½	32½
1865	24	33	31	32	9½	34	32
1866	24	32½	30	32½	13½	34	35
1867	28½	33	31	32	12½	33	32½
1868	32	46	44	45	7	19	18
1869	15	21	20	21	6	30	22
1870	20	30	20	30	10	32	32
1871	30	42	40	41	9½	35	30
1872	26	35	30	32	10	28	26
1873	24	32	31	32	10	30	29
1874	22½	28	26	28	11	27	26
1875	28	37½	35	37	10	32	30
1876	32	43	40	42½	10½	40	40

These harvest prices may, for the sake of comparison, be divided into three periods. The first is up to the great famine of 1837-38, and, omitting the exceptional years, includes 17 years. The second is from the great famine to the mutiny, a period of 18 years. The third is from the mutiny to now, a period which, excluding the exceptional years, embraces 14 years. The average prices of the three periods have been :—

	Wheat.	Barley.	Gram.	Bejhar.	Uncleaned cotton.	Juar.	Mung.
1st period ...	41·4	59·0	...	...	...	...	...
2nd period ...	39·4	58·2	48·7	53·6	17·1	46·9	42·8
3rd period ...	26·7	35·8	23·5	35·4	10·0	32·8	32·5

The rise of price in the third period has, therefore, been per cent. :—

	On the 1st period.				On the 2nd period.	
Wheat	...	...	...	55	...	...
Barley	...	...	...	65	...	...
Gram	...	...	...	...	45	...
Bejhar	...	...	...	...	52	...
Uncleaned cotton	...	...	...	...	71	...
Juar	...	...	...	...	38	...
Mung	...	...	...	...	31	...

The rise in prices in the second period was very small; taking wheat, it has never been, in fact, so cheap during the whole time as it was in 1850 during this second period. A diagram brings out the range of prices very markedly. In no year since the mutiny has wheat been cheaper than 40 sirs for the rupee, whereas it was so in 13 years before that time. In only 5 years since the mutiny has it been cheaper than 30 sirs for the rupee, whereas in only one year before that time, not being an exceptional year, was it so dear. The low rise in the price of kharif grains, especially mung, is noteworthy, for they are but little exported, and their price is not so affected by improvements in the means of transport as the rabi grains.

The market prices from 1813 to 1835 for wheat, barley, and gram are those given by Mr. Allen in his Jalesar settlement report as ruling in the Muttra market; those from 1843 have been abstracted from the books of the Muttra grain-sellers for wheat and gram, and give the prices on which the yearly balance of sales is made up, and therefore represent very fairly the average prices of the year. In these also the exceptional years are printed in red.

*Bazar prices in the Muttra market of wheat, barley, and gram from 1813 to 1835 in sirs obtainable for the rupee.*

Year.	Wheat.	Barley.	Gram.	Year.	Wheat.	Barley.	Gram.
1813 ... ..	22	31½	23	1825 ... ..	26	31	32
1814 ... ..	26½	52½	37½	1826 ... ..	20	26½	25
1815 ... ..	45½	61½	48½	1827 ... ..	20½	35½	36
1816 ... ..	32½	56	40½	1828 ... ..	31½	48	46
1817 ... ..	26½	39	30½	1829 ... ..	36½	51½	56½
1818 ... ..	21	29	23½	1830 ... ..	37	50½	51½
1819 ... ..	18½	30½	23½	1831 ... ..	32	45	45
1820 ... ..	18½	21½	22½	1832 ... ..	41	50½	61
1821 ... ..	24	46	28½	1833 ... ..	31½	45	42½
1822 ... ..	28½	46	38	1834 ... ..	27	40	33
1823 ... ..	25½	36½	43½	1835 ... ..	36	59	46
1824 ... ..	33	40½	49½				

*Bazar prices of wheat and gram in the Muttra market from 1843 in sirs obtainable for the rupee.*

Year.	Wheat.	Gram.	Year.	Wheat.	Gram.
1843 ... ..	18½	25	1860 ... ..	11	13
1844 ... ..	33	35	1861 ... ..	13½	15
1845 ... ..	34	40	1862 ... ..	33	41
1846 ... ..	32	44	1863 ... ..	25	33
1847 ... ..	30½	34	1864 ... ..	22	30
1848 ... ..	25	25½	1865 ... ..	18	22
1849 ... ..	36	41	1866 ... ..	18	26
1850 ... ..	44	60	1867 ... ..	22	32
1851 ... ..	43	52½	1868 ... ..	15	16½
1852 ... ..	32	34	1869 ... ..	10½	11
1853 ... ..	26	27	1870 ... ..	20	18
1854 ... ..	22	23	1871 ... ..	24	24
1855 ... ..	41	47	1872 ... ..	20	21
1856 ... ..	31	38	1873 ... ..	17	20
1857 ... ..	39	55	1874 ... ..	20	22
1858 ... ..	37	54	1875 ... ..	24	30
1859 ... ..	28	42	1876 ... ..	28	35

Taking the same three periods, the average bazar prices have been—

	Wheat.	Gram.	Barley.
1st period ... ..	32·5	43·5	47·9
2nd „ ... ..	32·0	37·5	...
3rd „ ... ..	22·8	28·3	...

Here, again, the rise in prices during the second period was very small: the whole almost has been confined to the last term. Comparing the prices that have ruled since the mutiny with those before the great famine, we find that wheat has risen 42 per cent. in price, and gram 53 per cent. In this district, therefore, the cultivator is not only getting his share in the rise of prices generally, but is also gradually forcing the baniya to give him a better price for his produce; for, whereas bazar rates have risen for wheat only 42 per cent., the harvest rates have risen 55 per cent. The difference between harvest rates and bazar rates for this grain was 27 per cent. for the first period, 23 per cent. for the second, and only 17 per cent. for the third. It must take time for the benefits of the competition in the export trade to filter down to the cultivator, guarded and hedged as he is by custom and long-standing obligations, but in a longer or shorter time it must reach him. The harvest prices of cotton in this district during the American war are instructive in the extreme as showing how the baniya's hand must be forced by a stimulated market. As the general result of this investigation it is proved that the whole rise in prices has been since the mutiny, and that, as compared with last settlement, the cultivator can now get 50 per cent. more all round for his produce.

Over 344,160 acres I have been able to ascertain the actual prices paid for the transfer of land. Precaution has been taken to exclude from this statement the cases where fictitious values to defeat the right of pre-emption or for other causes have been attached to the land transferred. The term of the expired settlement has for purposes of comparison been divided into three periods—that from the last settlement to the revision of records, from the revision of records to the mutiny, and from the mutiny to this settlement. The transfers have been divided into permanent or sales, and temporary or mortgages. The permanent transfers are further subdivided into voluntary or private sales, and forced or sales under execution of Civil Court decrees or for arrears of Government revenue.

Kind of transfer.				Total area alienated.	Price paid.	Average price per acre.	Revenue of area transferred.	Average purchase-money per rupee of revenue.
<i>1st period, last settlement to the revision of records.</i>								
Private sale	...	...	...	29,768	1,02,603	3.44	53,173	1.92
Auction sale	...	...	...	31,361	89,363	2.85	53,985	1.65
Mortgage	...	...	...	86,450	3,37,422	3.9	1,84,224	1.83
<i>2nd period, revision of records to the mutiny.</i>								
Private sale	...	...	...	15,619	1,29,042	8.26	32,423	3.98
Auction sale	...	...	...	4,964	28,146	5.67	11,805	3.38
Mortgage	...	...	...	19,287	1,50,298	7.78	41,598	3.61
<i>3rd period, mutiny to conclusion of the expired settlement.</i>								
Private sale	...	...	...	67,467	9,43,602	13.98	1,22,363	7.71
Auction sale	...	...	...	15,869	1,36,358	8.59	28,578	4.77
Mortgage	...	...	...	73,375	8,91,696	12.15	1,22,763	7.26

The prices obtained at forced sales are naturally far below those obtained at voluntary ones, and, judging from these figures, the difference has increased instead of diminished as the value of land has risen. The sums lent on mortgage are curiously near those paid for purchases, and in one period were even greater. This I attribute to the fact that in many cases mortgages are merely incipient sales; and also that sometimes the sum for which land is mortgaged is merely the aggregate of book-debts which are themselves largely made up of interest at high rates, so that the amount for which the land is finally mortgaged does not represent a sum which has really changed hands. Private sales are, therefore, the only trustworthy guide in gauging the value of land, and, judging by it, it is clear how enormously that value has risen during the

currency of the last settlement ; in fact, its value in the last period was just 300 per cent. higher than it was in the first, the second period marking nearly the mean between the two extremes. Taking the tahsils in the order of the value of the land as judged by these statistics I find them to be, commencing with the most valuable—

1. Mát.	4. Mahában.
2. Kosi.	5. Chháta.
3. Sádabad.	6. Muttra.

Mát owes its position to the lightness of the expired demand ; in Kosi land has been in a certain sense a monopoly, so few have been the sales. The position of the others is much as might have been expected from the character of the country, Muttra and Chháta differing but little from each other in the relative value of their land, being Rs. 10·07 per acre in the former as against Rs. 11·23 per acre in the latter.

The genral characteristics of the natural soils have been already indicated in the general description of the district. The two main divisions are into bángar or uplands, and khadar or Jumna valley. The latter covers (excluding the actual river bed) 59,453 acres, or 93 square miles.

In the uplands the soils vary from dumat or loam to bhur or sand. Dumat is found here and there, especially in Mát, Sádabad, and Kosi. The better descriptions are a rich brown in colour, and it varies from this to lighter shades ; and these latter, though still excellent, are not quite so fertile. The area of dumat is, however, small as compared to that of piliya or light loam, in which there is a large admixture of sand and which is the prevailing soil. Piliya is, as its name denotes, rather yellow in colour, and it differs from dumat in that it gets lighter and more workable after rain, whereas dumat becomes sticky and greasy. Piliya varies considerably in quality ; the better kinds are equal to loam, the inferior approach more nearly to sand. Clay soil is only found in the tarái or lowlands also known as *dahars*. It is hard and unyielding, and, except in years of favourable rainfall, cannot be touched by the native ploughs : gram is the favourite crop in it. Bhúr is pure sand, but the name is also applied to the lighter kinds of piliya in which the sand predominates. Pure sand uneven and in hillocks is known as púth. It is worthy of remark how generally, and in fact universally, the real bhúr and púth are accompanied by lowlying tarái or river beds ; it would seem that the action of drainage into such lowlands is to carry away the alumina from the upper soil, leaving only the sandy particles. Where this drainage has been long in action and the soil has become pure sand, the force of the wind continually blowing in one direction drifts it into sandheaps, such as are called púth. In the ravines of the Jumna locally called *behar* the cultivation is not extensive, and the soil, being largely mixed with kankar as well as denuded by the drainage, is poor. There are no great natural tracts with differing soil divisions in the uplands ; the absence of rivers and other striking physical features renders the face of the country singularly uniform. When valuing the capabilities of these soils, other points besides their mere productiveness must be weighed ; thus the soils which are pure sand are not only less fertile in themselves than the various loams and clays, but, from their greater readiness to impart moisture and the more rapid drainage from them, they fail in years of scanty rainfall and also in years when the early cessation of the rains endangers the sowings for the spring crops. In the valley of the Jamna the main soil divisions are much the same as in the uplands. Clay is the groundwork of all the firmer soils. In the bed of the Noh Jhíl and in other places where this soil is subject to the influence of stagnant water, this clay remains. Where, however, it is subject to the action of the main stream, the vegetable matter in suspension in the water mixes with the clay and produces an excellent and rich steel-gray loam. In the katris or fertile deposits on the edges of the river-bed which are liable to flooding yearly, this is found in its highest excellence. In the pure Jamna sand of the valley very good melons are grown.

Artificial soils. These are the main natural soil divisions. The artificial divisions are of two kinds :



The first is into irrigated and dry. Irrigation is from wells, canals, ponds or rivers.

(a) Irrigated and dry. The irrigation of the Agra Canal, not having been taken into account at assessment, was not recorded; while the area recorded as irrigated from wells is not that actually irrigated in any single year, but is the area of land which is commanded by wells, and which is irrigated when sown to a crop requiring water to bring it to maturity. This is, of course, the only method of procedure if anything like exactness and completeness is required, as it is a matter of accident which fields are actually irrigated in any year. At the same time it involves considerable inquiry.

The next artificial distinction is into manured or home lands, which are locally called *bára*, and unmanured or outlying lands locally called *barha* or *har*. In *Sáhpau*, *Sádabad*, *Mahában*, and *Muttra* this *bára* was subdivided into two classes, *gauhan* and *manjha*: *gauhan* being the highly manured fields immediately around the village, *manjha* being the outer circle of less manured land between the *gauhan* or inner circle and the *barha* or outlying land. These *gauhans* and *manjhas* were again subdivided according to their qualities into subordinate classes. In the remaining *parganas* of the district only one class of home circle or *bára* was retained, and this was subdivided into classes according to its quality. In these home lands natural quality of soil rapidly disappears; the distinction of soil, therefore, in classing them is but a subordinate question. The main points are—1st, abundance or scantiness of manure; 2nd, position with regard to the wash of the village; 3rd, quality of cultivation; 4th, quality of the water. I have seen in villages with very poor natural soil, but where the water is good, the fields well placed with regard to the site turned by *Kachhi* cultivators into a perfect garden; while others with an excellent natural soil, but with less artificial advantages vary but little from the outlying fields. Dry home lands are only found in *Kosi* and *Chhátá*.

Thus it will be seen from what I have said that outlying lands are classified only on the capabilities of their natural soil and on the presence and absence of irrigation and its quality.

In all the district the classes of soil, both natural and artificial, were first demarcated by a specially-trained establishment. In the first two *parganas* done (Sáhpau and Sádabad) this work was entrusted to the munsarims who superintended the preparation of the rough records, and thus all the field work proceeded *pari passu*, but this was found inconvenient, and in the later *parganas* an entirely separate establishment was kept up for the purpose: this establishment consisted, as a rule, of a *sudder munsarim*, two *naib sudder munsarims*, and eight *munsarims*, four to each *naib*. The method of procedure was as follows:—The inspecting officer first made a general examination of the *pargana* of which the soils were to be demarcated, taking with him the *munsarims* and *sudder munsarims*. The result of this examination enabled him to become acquainted with the peculiarities of the country and to lay down the lines on which the establishment was to work. The *munsarims* were then supplied with the *shajra* or field map of the village to which they were sent, and on this they marked lightly in pencil the different soil divisions, each soil having its appropriate line or colour: these lines were gone over both by the *naibs* and *sudder munsarims*, and altered, where necessary, before the map was sent to the inspecting officer. In the *Mahában* and *Sádabad tahsils* the irrigation was not recorded on the maps, but in the *khasras* only; in the other *parganas* it was found more convenient to mark it in both. While they were demarcating the soil divisions or *chaks*, the establishment had also to draw up a general account of the village or *hálát debi*. This account was divided into eight chapters. The first chapter gave the caste of the *zamíndars*, with a history of the village and its transfers, showing how the present men acquired the property; the revenue; the tenure, showing how shares were reckoned and how the revenue and expenses were collected and paid, with an explanation of any changes in the revenue during the settlement; the number of inhabited sites, with the population of each by caste,

showing how the ploughs were distributed ; and, finally, the condition of the zamindars. The second chapter showed the markets for surplus produce and how it was disposed of. The third chapter was devoted to irrigation, showing the number of wells of each kind, the character of the water and the subsoil for kucha wells in each part of the estate, the cost of making kacha wells and the time they lasted. The fourth chapter described the cultivation, showing how the area was held, whether in sir, right of occupancy, non-right of occupancy, rent-free, or gardens, and the rents paid by each kind, the rates of rent prevalent, and, finally, the position of the cultivators. In the fifth chapter were given the siwai items. In the sixth the character of the soil, with the reason for the demarcations on the map, and a statement showing the character of the soil, water, cultivation, &c., in each chak or block. The seventh chapter treated of the fallow land, and the eighth was left for miscellaneous notes of interest. With the soil map and this account of the village the estate was then gone over by the inspecting officer, who tested the work of the establishment, visiting each block in the village, and, in fact, made the work his own. As the maps were finished by the settlement officer, the demarcation lines of the soils were permanently marked on the map in ink or colours.

The chief thing to be avoided in such a system is a minute attention to details. Now that by the law assessment rates are applied to the enhancement of cultivators' rents, much more attention to detail is necessary than where these rates applied only to the general assessment of large areas; but, allowing for this, we found that the tendency to elaboration was very great, and most of the changes which were found necessary were in the direction of a broader and more general view. But as in going over each estate he adds to his general knowledge of the tract and to the fund of experience available for comparison in future inspections, this tendency to elaboration is a better fault than the opposite, and one more easily corrected by the inspecting officer. Then, when the whole pargana was completed, the maps were collected, a final review made, and, where necessary, changes in the original scheme drawn up for the guidance of the demarcating establishment made, and the soils for assessment finally determined on. The maps were then sent to the statistical office, where the soil areas were abstracted.

The soil areas of a pargana having been obtained, it remained to determine the soil rates applicable to such areas. Two ways were adopted :  
 Method of arriving at soil rates. the first applied to Sâhpau, Sâdabad, Mahâban, Muttra, and Mât-Noh Jhîl upland soils ; the second was adopted in Chhâta and Kosi, where, from the peculiarity of the holdings, the first could not be used.

The first method was as follows :—By the completion of the inspection of a tract, had been acquired by the settlement officer a general knowledge of the rates applicable to each kind of land, and he had also a special knowledge of the peculiarities of each estate. Aided by this, he could on going through the list of villages exclude those in which he knew that no representative rates could be found ; thus in some villages the rents were rack-rents, in others the record was untrustworthy, in others all the area was sir, paying no rent at all, or else the tenants, either from being nearly related to the proprietary body or some other valid reason, paid long fixed customary rents. These being excluded, there remained what may be called the villages paying the average *bona fide* rents. A list of these villages was sent to the statistical office, where the rent of every tenant in them was broken up into its component soils, and the rent paid according to the khatiauni slips, verified by zamindars and cultivators, given. The settlement officer again going through this list struck out all abnormally high or abnormally low rents (for even in villages so selected there must be many such). From this final list the tenants holding in one kind of soil only were abstracted and totalled, and the rent divided by the area gave a rate of rent for that soil ; where the area was small this rate was of course useless, but where large enough it formed a good basis for further testing. The general test applied was this : each soil in the final list from which these particular holdings in single soils were selected was totalled separately and the rate as found in the way previously described applied to it, and the sum of the rentals so deduced was compared with the total rental actually paid for the land. It

was always found that the rents paid for holdings in a single class of soil, which are presumably in a ring fence, run rather higher than general rates; allowing for this, the approximation was in all cases very close. In Sâhpau the test area was 34 per cent. of the whole tenant area of every class, privileged or otherwise, and the difference between the estimated rental and the actual 6 per cent.; in Sâdabad 44 per cent., with a difference of 1 per cent.; Mahâban 55 per cent., with a difference of 2.1 per cent.; Muttra 30 per cent. with the same difference, Mât 66 per cent., with a difference of 1.3 per cent.; and Noh Jhîl 41 per cent., with a difference of 1.7 per cent. The same method was applied to the Mât khadar; in the khâdars of Mahâban, Muttra, and Noh Jhîl the second way prevailed. This second was adopted in Chhâta and Kosi, because, practically, the whole area is either sîr or tenants holding at customary rates or rack-rented. The rates used for assessment in these parganas are those rates which from enquiries were found to hold in the very few cases where there existed any fair rents. The discovery of these was a matter of great difficulty, and the method employed to overcome this difficulty will be illustrated fully in the Chhâta pargana report. The rates, therefore, on which the assessments were based are those which we are absolutely certain now govern the average *bond fide* transactions between landlords and tenants. Rack-rates have been excluded, as well as speculations on the possible rise in rents hereafter. In fact, it is impossible to speculate what effect the developments of the future will have on rent rates, or how far enhancements of revenue will be possible at any future time; but one thing may certainly be predicted—the rise will, if it comes, be heaviest in the Cis-Jumna tahsils, in which in the course of 10 or 12 years the Agra Canal must work a revolution, not only by its direct influence in supplying water to an arid tract, but also indirectly by inducing habits of carefulness and industry in the place of carelessness, and, more than all, by disintegrating the village communities and introducing rents founded on competition in place of the customary almost nominal rates now prevailing.

The work of assessment was not completed by multiplying the soils of a village by the rates assumed to get the estimated rental and dividing it by two to get the revenue. The most delicate task of all yet remained—the making what may be called the rough allowance for the special character of the village. No one set of rates could, in fact, ever apply to a large tract of country without some allowances. In cases where a bania landlord rack-rents his village, and there is no hope that by treating him leniently he will treat his tenants equally leniently, there is no reason for assessing him under half his collections; again, low rates are applied to the inferior and dry soils, but such soil rates can hardly bring together a really inferior village entirely dependent on the annual rains and a really good village with a small area of poor land; an indifferent season which would hardly be felt in the latter may mean almost ruin to the former. Similarly, the prevalence of *baisurai*, the minute subdivision of property in a large village community, and other like points, come forward for consideration at this stage. This last rough allowance being made, the new revenue was arrived at.

For the khâdar mahals—that is all land which is liable to be swept away or to have land thrown up opposite it by the river—engagements have been only taken for five years. The demarcation of these mahals was undertaken by Mr. Reade. Where the river bluff exists there is but little difficulty, but in places where this is replaced by sandhills or land that does not offer much resistance to the current of the Jumna more difficulty was experienced. The largest area of khâdar land is contained in the Mât-Noh Jhîl tahsil, where, from the recent action of the river, it was found necessary to include the whole of the lowlands of the Noh Jhîl. The dates on which these mahals will again come under resettlement are as follows:—

Mahâban	...	...	...	June, 1881.
Muttra	...	...	...	" 1881.
Chhâta	...	...	...	" 1882.
Kosi	...	...	...	" 1882.
Mât-Noh Jhîl	...	...	...	" 1883.

Dates for the payment  
of instalments of rent and  
revenue.

The following dates have, with the sanction of the Board  
of Revenue, been determined on for the payment of revenue  
instalments :—

Sádabad	} ...	...	...	...	{ Early kharif, December 15th. Late kharif, January 15th. Rabi, June 1st.
Mahában					
Muttra					
Chháta	} ...	...	...	...	{ Early kharif, December 1st. Late kharif, January 1st. Rabi, June 1st.
Kosi					
Mát-Noh Jhñ					

The revenue of certain khadar mahals in Muttra, Chháta and Kosi is not payable until July 1st. In all cases the same principles were adopted. It was first determined on what date the crops on which the instalment was due ripened and were fit for harvesting ; this gives the date for the rent of the non-right of occupancy tenants. The rent of tenants with a right of occupancy is due 15 days later. Three weeks after this falls the revenue payable from this crop. This gave the dates of the various instalments. There remained to determine the number and the amount of each. Cane and other exceptional crops are so little grown that there was no necessity of exceeding the normal number of two instalments for the autumn crop and one for the spring. With regard to the early autumn crop, but a small portion of the revenue, and that only in villages of a certain and poorer class, has been apportioned to it; the grains then grown are inferior in quality and value, and are produced rather as food for the cultivator to tide over a bad time than to sell for rent or revenue ; the crops, too, ripening at that time are, as a rule, such as are grown in poorer and lighter lands. Remembering this, and remembering that spring crops are more valuable than autumn crops, the instalments of revenue in each village were fixed according to its peculiarities of soil, means of irrigation, and the general character of its crops for the previous years.

After the revenue was assessed and declared it remained to distribute it ; wherever possible the people were left to distribute it privately, and as far as could be the old dharbáchh custom was preserved, but under the rule that all must agree to any distribution other than one according to the quality of the land made this, especially where there are many sharers, a matter of difficulty. Where the sharers could not agree the revenue has been distributed according to the quality of the land. In the large villages, such as Phalen with its close on 800 separate holdings, this has been a very long and tedious work, but as it involved no trouble beyond care, there is nothing worthy of note here.

The following statement shows the revenue if full half assets at estimated rates were imposed ; the revenue declared by the settlement officer ; the changes made on review of the English statements by the Board of Revenue, and the cesses payable on the revenue-free land from each tahsil. The different soil areas will be found under their respective parganas :—

Name of pargana.	Half-estimated assets at rates.	Revenue declared by settlement officer.	Revenue fixed by Board of Revenue on revision of statements.	Cesses on revenue-free land.
	Rs.	Rs.	Rs.	Rs. a. p.
Sáhpau ... ..	61,690	60,990	60,900	2 0 0
Sádabad ... ..	2,66,500	2,55,116	2,55,116	24 4 0
Mahában bángar ...	3,30,030	3,14,123	3,11,393	2,935 4 0
Ditto khádar ... ..	4,260	2,894	2,894	159 0 0
Muttra bángar ... ..	2,52,930	2,45,696	...	4,669 0 0
Ditto khádar ... ..	5,010	3,672	...	4 4 12 0
Chháta bángar ... ..	1,94,550	1,93,380	...	2,965 0 0
Ditto khádar ... ..	99,60	9,148	...	15 0 0
Kosi bángar ... ..	1,63,400	1,59,620	...	...
Ditto khádar ... ..	7,720	7,421	...	...
Mát-Noh Jhñ bángar	2,54,270	2,49,830	...	26 0 0
Ditto khádar ... ..	31,970	31,990	...	85 0 0
Total ... ..	15,32,290	15,34,274	...	11,285 4 0

Incidence of the demand of the expired settlement as compared with that now imposed.

The incidence of the demand of the expired settlement compared with that now imposed is, by parganas, as follows :—

Name of pargana.		Expiring demand of last settlement falls on the			Final demand of this settlement falls on the		
		Cultivated area per acre.	Assessable area per acre.	Total area per acre.	Cultivated area per acre.	Assessable area per acre.	Total area per acre.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Trans-Jamna.	Báhpau	3 1 8	2 14 10	2 16 11	3 5 0	3 1 11	2 13 10
	Sádabad	2 13 0	2 10 8	2 7 2	3 1 11	2 15 5	2 11 5
	Mahában	2 8 2	2 4 8	1 14 3	2 11 9	2 7 11	2 1 1
	Mát	2 3 2	1 14 2	1 11 9	2 8 3	2 2 7	1 15 9
Total		2 8 3	2 4 5	2 0 1	2 12 8	2 8 4	2 2 8
Chs-Jamna.	Muttra	1 12 1	1 8 9	1 2 7	2 0 5	1 12 9	1 5 6
	Chháta	1 8 2	1 5 5	1 1 5	1 11 10	1 8 8	1 4 1
	Kosi	1 13 2	1 10 1	1 8 8	2 0 2	1 12 9	1 11 3
Total		1 10 11	1 7 10	1 3 6	1 14 8	1 11 4	1 6 3
Total district		2 1 6	1 14 1	1 9 6	2 5 8	2 1 9	1 12 8

The revenue assessed on the wet area falls on the whole wet area at Rs. 2.95 the acre, and that on the dry area at Rs. 1.65 the acre.

The total cost of the settlement has been Rs. 602,973. The extra collections from the enhanced demand have up to the end of 1286 fasli been Rs. 6,04,731 from revenue alone ; to this must be added Rs. 60,473 from the extra ten per cent. cess. Up to the date, therefore, of closing the settlement the extra collections caused by its operations were Rs. 62,231 more than its cost.

In consequence of the prevalence of the custom of revenue-rates over a large area of the district it is impossible to give any general view of the rental before and after the completion of the enhancement work of the settlement courts. The information is given separately for each pargana at the end of the individual reports.

The theory of our land revenue is that it was originally a rent, and has now, through the recognition of certain intermediate rights, become a tax on rent paid by landlords entirely. As a fact, however, this class only pays the tax in some cases. As I have shown, the system of assessment has been to discover average current rates for soils, and to assess the demand on, with certain exceptions, half those rates. It does not follow that the rates used are those in the particular village being assessed ; perhaps not an acre of land in the estate pays them ; the tenants may be strong and the landlord may be weak or indulgent, or the landlord and the cultivator may be nearly related or too nearly of a standing, and through old custom the rates paid may be low. Government, therefore, takes not half the rental, but half of what would be the rental if all the land were rented at average rates. It is clear that few estates will have a rent-roll of double the new revenue. The village priest and "kherapat" will have their rent-free plots, and there will be a large area of sir or of land held by the proprietors' brethren paying low rates. At the first blush, therefore, the rise in the assessment is paid entirely from the proprietor's profits. Whether it continues to be paid from such profits depends on the condition of the village. By the law, after allowing for certain prescriptive rights, the landlord may sue in the settlement courts and obtain enhancement of the rent of his right of occupancy tenants at double of the revenue-rates. In the case of a rack-renting landlord rents have presumably reached the limit of what can possibly be screwed from the tenants ; the rise of revenue does not act as rise of prices and enhance the average of rents ; these landlords therefore cannot pass on any of the extra demand to their

tenants, and the whole enhancement falls on them. Going along the line towards the more indulgent classes of landlords, we find that, until average rates are reached the right of occupancy tenants are safe from enhancement, and the tenants with no fixed occupancy rights are safe, except in so far as the rise drives the landlords to rack-renting. But below this average comes the great mass of proprietors who through indolence, good nature or weakness have been contented hitherto with low rates ; on them the rise acts as a spur, and the easy and cheap procedure of our settlement enhancement courts gives them the means they want as against their most difficult tenants, those with a right of occupancy ; and once the enhancement established against them, that of the non-right of occupancy follows as a matter of course. In proportion, therefore, as landlords are weak they prosper by the severity of an assessment ; if such assessment be not so heavy that it drives their tenants from the village, for at a jump they realise current rates which, in the ordinary course, and left to themselves, they would not have worked up to for years and perhaps never ; and they are left at a level with their co-zamindars to take advantage of any fresh opportunities of raising the rents that may occur. I have thus accounted for the sudden rise in rents which follows the settlement. The cultivators cannot pass this rise in rent on to any other class, for, as we know, rent is no element of price ; and the value of produce will not rise because the producer has to pay his landlord more : cultivating landlords and cultivators in villages of a certain kind have, therefore, to bear the whole rise on their land. Hence on the prosperity of the cultivator largely depends the stability of the revenue. To some extent we have protected him by creation of permanent rights of occupancy, but it is precisely in villages where this protection is most required that it fails ; the right takes time to grow, and the hard landlord with no pity for his tenants will be careful that it does not grow. That protection of some sort is required is undoubted, for the majority of the large landlords who have grown up under our rule are unfitted by habits, traditions and education to be trusted with extensive powers over their tenants : and as time goes on and the press of population on the land increases the struggle and competition, their power must grow.

Thus the course of events during the late scarcity has convinced me that some restrictions should be put on the landlord's power of eviction for non-payment of a decree for rent under section 35 of Act XVIII. of 1873 ; it would probably be sufficient for the legislature to empower the local Government to suspend the operation of the section by proclamation whenever it was considered that, by reason of the calamity of the season, such a course was necessary. In this district the landlords have largely availed themselves of this provision of the law to eject right of occupancy tenants, especially as their minds have become embittered against this class by the extensive litigation during the settlement for record of rights of various kinds. Were eviction a method for recovering rent, it might, perhaps, be harsh to bar the landlord from one means of recovering his rent when the Government was probably still demanding the revenue ; but it is not a means of recovering rent ; the judgment-debtor is as much liable to be proceeded against for the recovery of the sum after ejectment as before, and the ejectment itself is but a penal provision. Such a penal provision should, however, be reserved for wilful defaulters and for persons so hopelessly involved as to be unable to carry on their holdings ; those persons should certainly be relieved from it who, by a temporary calamity, are reduced to want, and the landlord's power of choosing a season of general want to increase the distress by ejectments should be certainly taken away.

## CHAPTER VI.

### RECORDS.

History of records previous to this settlement—Survey—Preparation of records by the settlement—  
First stage : Preparation of the records in the rough : (a) hissa-kashi ; (b) khasra—Disputes during  
preparation of rough records—Second stage :—Patwāris' papers—Measurements of khādar—  
Wajib-ul-arz—Revenue-free tenures : (a) Validity of the tenures ; (b) Rights of muāfīdars and za-  
mīndars—Fairing—Statement of case work disposed of during the course of the settlement—  
Case of Qasba Muttra.

At the last settlement the village map, and khasra of index to it, were prepared, but these were used for settlement purposes only, and no attempt was made to prepare any patwāris' papers in accordance with them. The yearly papers were in Persian, and known as the kitab-kasht. They were prepared by the kanūngos from returns made by the patwāris, and showed the total area cultivated by each proprietor and the tenants, without distinction of fields, and often gave on the fly-leaf a shorter or longer history of the village ; this history was the germ of the paper known as the wajib-ul-arz, while the other paper would now be known as the terij. When the patwāris' papers, such as we now call by that name, and especially the khewat, were ordered to be prepared, it was found that, as the tenures were so difficult and complicated, without a re-measurement of the whole district, and a carefully prepared record, nothing could be done. Some commencement appears to have been made with the records of the Mahāban villages re-settled by Mr. Tyler in 1844, but it was not until the Collectors had continually represented, in their yearly reports from 1844 to 1847, the unsatisfactory state of matters, that the preparation of the new records was taken up in earnest. On June 29th, 1848, the Government authorized Mr. E. Thornton, then Collector, to commence the work, and when he left the district soon afterwards it was taken up by his successor, Mr. Alexander, and finished in 1852. This is always known as the revision of records. The whole cost to Government of this important work would seem to have been Rs. 3,500, the cost of measurement and the outdoor work having been defrayed by the zamīndars. In their careful description of the various tenures, and in their accurate record of each man's share in the estate, these papers have been invaluable to us, for they are looked on by the people themselves as of great weight as evidence in disputes as to rights ; and as they were prepared at a time when property in land was not so sought after, and individual rights had not become so distinctly marked, agreements were made then on many subjects which, if left undecided till now, would have been fought out with bitter hostility. In most cases the Urdu copies of these records were destroyed in the mutiny, but, except in Noh Jhīl and Māt, the patwāris' copies have generally escaped.

When the demarcation of the boundaries in this settlement was completed, and the disputes arising from it settled,\* the survey of the district was undertaken and carried out by a party of the Revenue Survey under the orders of Colonel F. C. Anderson. The survey had to supply the settlement with copies of the shajra or field map and the khasra. As, however, the khasra consists of a great number of columns, a discussion arose early in the settlement as to what columns of the paper were to be filled in by the Revenue Survey, and for what columns the Settlement Department

---

\* Trijunction points have been marked by stone pillars one foot square, of which one foot stands above ground, thus presenting a cubic foot ; the khādar and bāngar line has been marked by pillars similar in every respect, except that at the top, to the depth of six inches, the corners of the square have been cut away and an octagon formed. The trijunction points in the Noh Jhīl, which are submerged for the greater part of the year, are of stones projecting ten feet from the ground. Disputed boundary lines have been marked by masonry pillars, and the Bhartpur boundary in places by the old masonry pillars, but generally by long unhewn stones supplied by the Darbar. The permanent survey marks, where laid down, are triangular stones of  $4\frac{1}{2}$  inch side, of which the top, to a depth of three inches, has been cut into a smaller triangle of  $4\frac{1}{2} \times 4 \times 4$  inches.

was responsible. A committee of revenue and survey officials was held to decide the point, and the orders of Sir William Muir, dated September 18th, 1873 were based on their report. The Survey Department were made responsible for the following :—

- Column 1. Number of the field.
- „ 5. Total area by survey in acres.
- Columns 7 to 14. Details of barren waste, old waste, or culturable fallow. These columns were to be filled in by the Revenue Survey, whose work was, however, to be tested by the Settlement Department, the result of such testings to be sent to the Survey Department for guidance.
- Column 19. Cultivated area.
- „ 21. Of the crop columns, one to be filled in by the Revenue Survey for the year of survey, the other to be left blank.
- „ 23. Under the head of remarks wells to be noted.

When the field maps and the khasras were made over to the Settlement Department, they had to fill in the remaining columns of the khasra, that is—

Preparation of records by the settlement.

- Column 2. Name of thok or patti.
- „ 3. Name of owner of field.
- „ 4. Name of the cultivator, with the length of his occupancy.
- „ 6. Area in village measurement.
- Columns 15 to 18. Details of irrigation.
- Column 20. Kind of soil.
- „ 22. Crop at time of preparation of rough records.

For the filling in of these columns a special establishment was entertained. This establishment consisted generally of a *sadr munsarim*, *munsarims*, and *girdawars*. From four to five *girdawars* per *munsarim*, and four *munsarims* per *sadr munsarim*, was found to be the proportion which combined best efficiency and cheapness. This establishment was responsible for the following papers :—

- (1.) *Hissa-kashi* or rough *khewat*—that is, statement of owner's rights in the village.
- (2.) The columns of the *khasra* above given.
- (3.) The list of wells.
- (4.) List of unirrigated fields.
- (5.) List of fields affected by *baisuri*.
- (6.) List of errors in map, either in boundaries of fields, shape of field, absence of number, omission of wells, &c., found in the survey work in the course of preparing the rough records.

This establishment was always immediately under the superintendence of the Assistant Settlement Officer. The work was begun and about half carried through by Mr. Reade. He soon found, from the multiplicity of references with which he was overwhelmed, the necessity of some hand-book for the guidance of the men engaged in the work. He therefore composed a work of between 70 and 80 pages and of nearly 200 sections, which is a complete book of reference and also of conduct for men engaged in preparing the rough records. This was lithographed and interleaved. Copies were given to each official. Any changes found necessary were conveyed by circular orders and entered on the spare leaves of the volumes. So minutely accurate is this book that it not only lightened the work of superintendence, but also, after the sudden death of Mr. Reade, the work could be continued without much friction on the lines which he had laid down.



The work of preparing the various records was carried on simultaneously, and it will be therefore simpler to follow these papers through their various stages.

First stage : preparation of the records in the rough.

This paper was the first prepared, as, until it was ready, the filling in of the khasra columns could not proceed. It consisted of two parts : on the right page was copied the patwáris' khewat unchanged; on the opposite page, if the patwáris and zamíndars stated that the khewat as it stood was correct, no entry was made; if there, however, appeared to be either an undecided dispute, or else a mistake in the former record admitted by the persons interested, the girdawar drew out the new entry, such as after enquiry he considered it should be, and entered it opposite the patwáris' record. After this hissa-kashi had been verified by the munsarim, copies of both old and new records, in cases where they varied, were made and sent to the Deputy Collector for decision as cases. After the decision of these cases the Deputy Collector attested the whole hissa-kashi. So far the names of the sharers and the amount of land they held in village measurement, as recorded in the khewat, only had been attested. It remained to reduce the village measurement to the acres in which the survey areas were given. This could not be done until the completion of the khasra entries: when these were finished, each man's share in column No. 3 of the khasra was totalled and the area compared with that already recorded in the khewat. In cases of agreement, the area in acres was recorded in the hissa-kashi; where they varied, a case was instituted and sent to the Deputy Collector for decision. As each sharer knew from the khatiauni slips the area recorded against his name in the khasra, he had full opportunity for objecting.

The remaining columns of the khasra that came blank from the Survey Department were filled in on the spot by the girdawars, assisted by the patwáris, zamíndars, and cultivators. As the work proceeded, the patwári had, from the khasra, to prepare the khatiauni slips. These slips were in Hindi, and contained the name of the owner of the field, with a reference to the number of his khata or holding in the hissa-kashi, the name of the cultivator, the fields he held, with the period for which he had held them, together with the rent he paid. Of these slips two copies were made, and, after preliminary attestation by the munsarims, one copy was given to the cultivator and one placed with the rough records. These slips were attested, some of them by the Deputy Collectors, but the majority by specially selected officers of lower grades, who attested all cases of agreement and forwarded all disputes to the Deputy Collector in charge of the pargana for decision.

These two papers completed the attested papers prepared by this outdoor establishment. The other papers were, however, tested continually on the spot by the officers in charge.

The disputes which arose during the preparation of these papers were numerous, and the case work arising from them exceptionally heavy. Of the hissa-kashi cases the following were the chief:—

Disputes during preparation of rough records.

- (1) Claims of a person unrecorded in the khewat to entry of his name as a sharer. This claim was raised on numerous grounds, thus—(a) That in some previous famine the claimant's ancestor had left the village, making over the share to his brothers, whose descendants, during the last few years, had acknowledged the claimant as the heir, giving him some land on revenue-rates. (b) That the claimant has always held cultivation on revenue-rates and been admitted to the village assembly for auditing the accounts. (c) That, as the younger member of a family, the claimant's name does not appear in a record which only records the elder members. (d) That the claimant was the partner in a purchase made by the recorded owner.

- (2) Disputes as to mortgages and the amount of money due, the date of mortgage and the condition on which it was made. This class of cases is beyond the purview of a Settlement Court, and enquiry was only made to ensure as perfect a record as possible. Another class of disputes as to mortgage were not so easy to decide ; it very often happened that the owner of a fractional share in land had mortgaged certain specific fields by name up to (roughly) the area of his share : where his co-sharers raise no objection the decision is easy, but it sometimes happens that they object.
- (3) Disputes as to fractional shares in land. These were specially difficult to decide where the disputants were out of possession as mortgagors or for other reason.
- (4) In bhaiáchára villages it often happens that sharers exchange fields, and the fields so exchanged are recorded as held by the one sharer as cultivator under the other. No rent passes, but each man pays the dharbachh or the share of the revenue and expenses due on the land he actually cultivates. This arrangement often continues for some time, and when a dispute arises as to ownership it is not easy of settlement. Still more difficulty arose from another class of cases which were found in villages where the former record of rights did not represent the actual condition of proprietary right in the estate. Thus, where fractional shares and area were both recorded in the record of rights, it was sometimes found that a sharer entered in the khewat as holding less than his proportional area was recorded on more in the jamabandi, the excess in the latter being recorded as cultivation under another sharer who, according to the khewat, held more than his share of land. It was frequently allowed that there had been a private re-distribution of the land after the framing of the old record, of which the patwári had taken no note ; but as often this was as strenuously asserted on the one side as it was denied on the other. In other villages land appearing in the khewat as common to several sharers appeared in the jamabandi as in severalty, a man appearing in the latter as cultivator under another in the very land in which, according to the former, he was a co-sharer.

The disputes that arose out the khatiauni slips were mainly as to the length of occupancy. The question of right of occupancy has, in fact, been fought out with the greatest obstinacy, especially in those villages now owned by a single man, where the original community, in spite of the sale of their rights, continued to hold on and set the power of the zamíndar at defiance, only admitting his right to collect a certain fixed sum as rent. In some of these villages the entry as to every single field was disputed, and the cases were numerous and difficult. For in this district it has not been the custom for the patwáris to prepare the statement of under-tenants. In going round the village they recorded in their khasras the name of that person as cultivator whom they found actually in cultivating possession, without any reference to the person from whom he obtained the land. The patwáris' papers, therefore, could not be taken as giving any assistance in deciding these cases beyond showing who cultivated the land in a particular year. For, in villages of the class to which I am referring, the zamíndar had not much direct power, and had little hand in arranging for the cultivation of the fields ; he, as I say, confined himself to collecting his rents, while the cultivators disposed of the fields mostly as they pleased, sometimes even mortgaging them. To have omitted to take this fact into consideration would have been a great injustice to the cultivators. The other disputes that arose from the attestation of these slips were of the ordinary kind, as between claimants of shares in cultivation, disputes as to rent, &c.

This statement of grounds of dispute is in no way to be considered as exhaustive, but is merely given in explanation of the very heavy case work which has been disposed of by the Settlement Courts.

I have thus traced the rough records down to the time at which they were **Second stage: patwáris'** attested. The next step was to turn them into forms used for papers. the patwáris' papers. As soon as the attestation of a tahsíl was completed, a small establishment, under the charge of the Deputy Collector under whom the tahsíl was, was appointed. Their duty was :—

- (1). To fair out the hissa-kashis, including all changes made by the Deputy Collector at attestation, and translate them to the patwáris.
- (2). To superintend the preparation, by the patwáris, of a rough jamabandi from the khatiauni slips.
- (3). To carry on the current work—that is, to note in the papers the result of all mutation, enhancement, or other cases.

When the patwáris had finished their office work and obtained translations of the new attested records, they went to their villages and made out their papers for the year following the one for which the rough records were prepared in the ordinary way, but on the basis of the new records, noting all changes in area or in the proprietary or cultivating holding since the previous year. These new papers were compared in the office with the previous ones, all changes of cultivation noted, and errors in area, &c., corrected. These changes in the jamabandi were attested on the spot by munsarims. The changes which the patwáris found in the khewats were reported to the officer in charge, who disposed of them in the ordinary way. When one year's papers were carefully prepared on this system, there was no difficulty in preparing those for the next year, which were, as a rule, those which were to form part of the settlement record. The jamabandis of this record were attested on the spot by the Deputy Collectors. In all the papers now prepared the acre has been recorded as the standard of measurement in place of the bigha. The bigha was retained until comparison of the new and old areas had been made, and was then, though still entered, no longer used. To have turned back the acres of the survey into the local bighas would have been to introduce an element of great confusion, and, besides, the acre is more and more becoming the standard for all statements requiring areas. The two years of training have made the patwáris perfectly familiar with the new name and the calculations in acres and decimals of an acre, while the khatiauni slips and the numerous enhancement suits have familiarized the landlords and cultivators both with it and with the rates of rent reckoned on it.

The changes in the khádar area have been measured yearly, and the opportunity **Measurements of khádar.** has been taken advantage of to, as far as possible, familiarize the patwáris of this tract with surveying, as in future they will have to file yearly a map of the khádar land with their papers. In the settlement misl for the khádar maháls khasras, jamabandis, and the agreement for the payment of the revenue have been filed; the wajib-ul-arz contains only the special sections referring to the khádar mahál as separate from the bangar. It was found impossible to prepare a separate khewat or record of proprietary right for the khádar, as in villages held by a community, the sharers only holding separately in the uplands would have been by this cut off from their rights in the common land of the lowlands, and those holding only separate possession in the lowlands from their rights in the common land of the uplands. One khewat for both has therefore been prepared and filed in the misl for the uplands, the areas owned in uplands and lowlands being shown separately against each sharer.

Of the record of rights it only remains to describe the arrangements for the preparation of the wajib-ul-arz. This paper is of great importance in the large village communities of this district: it is useful in the villages owned by a single proprietor, but in such estates the law has now, to a great extent, settled the relations of the landlords and their tenants. In the bhaiáchára estates, on the other hand, the communities are artificial fabrics, in which custom governs most of the transactions of the corporation, and without a record of these customs their administration would be difficult. Before his death, Mr. Reade went through and examined all the existing wajib-ul-arzes of the district, and drew out a scheme or skeleton of the ground-work on which this paper was to be prepared. The preparation was entrusted to selected munsarims, and the attestation by zamíndars and cultivators was made by the Deputy Collectors. The scheme or skeleton is of a general wajib-ul-arz to meet every possible case, and it was found that the tendency was to over-elaboration and to make the record too long and prolix; the attesting officers had therefore to use their discretion in cutting out irrelevant passages, and especially matters which are the subject of law. This scheme is here given, both on account of its value in itself and because it throws a light on some of the peculiarities of the village communities.

#### CHAPTER I.—CUSTOMS REGULATING THE POSITION OF THE ZAMÍNDARS INTER SE.

##### *I.—Tenure, including subordinate proprietary rights.*

- (1). General description of tenure, whether zamíndari or bhaiáchára.
- (2). Name of thoks and pattis, with their area and revenue.
- (3). Shares how recorded. (Here is to be recorded detail of any confiscated or existing muáfi, of land held in lieu of annual payments, with their areas and revenue (if any) payable.)
- (4). Detail of hamlets really separate from the estate, though measured in it.
- (5). Record of men owning land, but no fractional share; also men owning land in severalty without any share in the common land; also "*farotar milkiat*," that is, land in proprietary possession of a man who cannot transfer it without the consent of the other sharers.
- (6). State name of farmers or mortgagees (if any) of importance.
- (7). If village pays no revenue to Government, with whom is the settlement made—with the muáfídar or the zamíndar? If with the former, what do latter obtain—malikána, or land in lieu of malikána?

##### *II.—Collection of revenue and distribution of profits.*

- (1). Revenue and patwáris' cess, with the instalments in which due.
- (2). Are the surplus collections remaining after payment of revenue, cesses, and other charges distributed according to ancestral shares, or are the collections of the common land first appropriated to the payment of the revenue and the surplus collections distributed, or the deficient collections made up by a bachh? If by a bachh, on what land is it to be levied—on the land in separate possession, or sár, or on cultivator's land as well? Are village expenses included in this bachh or are they separate? Is the bachh made up yearly or for each harvest?

##### *III.—Siwai items.*

Detail of siwai income, with the sources from whence derived: (a) phalkar, which is rare in the district; (b) jalkar with khasra numbers of ponds and their rent in the previous year; (c) bankar, with grazing fees.

##### *IV.—Village expenses.*

- (1). How are they met? Do lambardars get a fixed percentage on the revenue, keeping any surplus and meeting any deficiency from their own pockets, or is the actual expenditure debited, varying from year to year? In either

case, does the lambardar advance the money, receiving it at the yearly audit, or does he get some land without rent, or at nominal rates, to cover such expense, or in lieu of *hak lambardari*?

- (2). In the latter case, what subjects of expenditure may be debited? The principal kinds are expenses of certain law-suits, lighting chaupals, charity, gifts to fakirs, &c.

*V.—Appointment of lambardars ; their rights and duties, privileges, and powers.*

- (1). Names of existing lambardars, with their thoks and pattis.
- (2). Local custom as to their appointment, whether a lambardar's heirs succeed of right or not, and if so, what heirs and in what order?
- (3). If the lambardarship be not hereditary, what is the custom? Sometimes the largest sharer succeeds, but generally it goes by votes. If so, how are these votes counted—on the greatest amount of land, or of revenue, or on the number of heads? In some villages, though the office is not hereditary, the heirs of a deceased lambardar are to have preference over outsiders.
- (4). If lambardarship is hereditary, what is the case if a lambardar is dismissed? The general rule is that if he is dismissed for incompetency, his heir may succeed; but if for dishonesty it passes to another family.
- (5). If a lambardar transfers his share or part of it, what happens? As a general rule he retains the office if any of his share remain. What is the custom if he mortgages his share, or if he sells it, or it is sold under a decree? Does the new possessor succeed as of right to the lambardarship? If he leave the village for any time, can he recover his office when he recovers his share?
- (6). What are exactly his rights and duties in the village?
  - (a). Do the subordinate sharers pay through him their quota of revenue?
  - (b). Do lambardars alone collect and assess rent on the common land, admit occupancy in courts, &c.?

In both these classes the rule must be laid down clearly, as subordinate sharers are apt to usurp the rights of the lambardar.
- (7). Do owners of resumed muafi grants pay any dues to the lambardar?

*VI.—Arrangements of sharers inter se as to the transfer and restoration of a defaulter's share.*

- (1). The usual custom seems to be for the nearest relative of a defaulter to pay the revenue and take the share; if the relatives, in order of heirship, refuse, the sharers of the patti pay and hold the share common.
- (2). Within what period may the defaulter by repayment rejoin his share? For what improvements made by his *locum tenens* must he pay?

*VII.—Right of pre-emption.*

Any local custom as to the right of pre-emption. What relations by name have the right, and whether they must be sharers in the village or not? If relations refuse, have co-sharers in the village the right?

*VIII.—Mortgage.*

Any local custom as to mortgage. Can a sharer in undivided land mortgage his sir or his share in the common land? Do mortgagees share in the common land in bhaiachara villages? Also, are they responsible for the baohh, or do they receive a share

of the profits, or do they only pay the revenue? Can lambardars sell or mortgage the common land, or is the consent of all the sharers necessary?

*IX.—Absconded sharers and arrangements made for the management of their shares.*

- (1). Who may take an absconder's share? The usual custom is for the relatives, according to their grades of heirship, to have the refusal; the customs differ as to whether a relative not already a sharer may come in. Failing relatives, any sharer in the patti, and failing them any sharer in the thok, and then the village, would seem usually to have the option.
- (2). The person in possession must respect the boundaries of the property, nor has he the power of transfer.
- (3). Within what period may the absconder or his heir return and claim restitution? In some villages the limit is 60 years, the transaction being looked on in the light of a *quasi-mortgage*.
- (4). On what condition can the absconder recover if put out of caste, and on payment of what sums? Will it be enough if he pay arrears of revenue and debts without interest? Must he pay for improvements, as pukka wells? Must an account of profit and loss be given, and the latter paid before possession is given?
- (5). When can an absconder get entry? The usual rule is in the month of Jeth following his return.

*X.—Customs relating to inheritance, second marriage, and adoption.*

Only local custom to be recorded.

- (1). Whether inheritance is *Jorú bánt*—that is by wives, one son of one wife getting as much as four sons of another; or *bhai bant*, that is all sons of whatever wife sharing equally? Does a childless widow inherit or only receive maintenance. Is it the custom to have *madkhula* wives—that is wives of another caste? if so, has she equal rights with a *mankuha* or legitimate wife? Do *lenraras*, or children of a *madkhula* wife by a previous husband, inherit?
- (2). If there are Gushain zemíndars, what are the customs as to chelas?
- (3). Any local customs as to adoption. May a childless widow adopt a son? If so, must it be one of her husband's family? The general rule is that, if her husband has consented, she may adopt one of his family.
- (4). What relations are appointed guardians of widows and minors?

*XI.—Custom for re-distribution or re-adjustment of land or revenue under section 47 of Act XIX. of 1873.*

State any custom under this section.

*XII.—Special customs regarding partition.*

- (1). How is partition of the village to be effected—on biswas or on separate possession or in proportion to revenue paid?
- (2). What lands are exempted from partition by reason of their sacred character or otherwise?
- (3). Do trees go with land transferred, or has the sharer parting with the land a right to claim trees on it within a certain time?
- (4). How are the costs of a partition to be met? There is but one village in which the areas of thoks may be changed by partition, and very few in which pattis may.

*XIII.—Rights in common land.*

- (1). Under what conditions may sharers cultivate common land? Do they pay rent or the bachh? Can sharers take such land without consulting the lambardars or the other sharers? Must they give notice before relinquishing it?

- (2). Can a sharer break up waste without consent of his co-sharers or the lambardars? Are any special low rents payable for such lands?
- (3). Is a sharer's cultivation in common land sîr? If not, can he acquire right of occupancy like other cultivators? Can the other sharers eject him?
- (4). What are grazing rights in common land? Do sharers or cultivators pay for such grazing and have other villages the right to send in their cattle to graze? If so, at what rate?

*XIV.—Malikâna and land given in lieu of it.*

- (1). Who pay malikâna and hak mukaddami, and how much and when? To whom is it paid and in what shares? Sometimes revenue-free grantees day, sometimes mortgagees, and sometimes *hibadars*.
- (2). Is the payment heritable, or does it die with the present possessors? Is it transferable? As a rule it is not.
- (3). If land is held in lieu of malikâna, can heirs succeed, and is it transferable? Can any payments from it be enhanced?

*XV.—Manner of paying fines imposed on the village.*

The general rule is that the fine on the village is paid in the same way as the Government demand is met, each sharer meeting a particular fine on himself.

*XVI.—Appointment of the patwâri.*

- (1). Name of present patwâri.
- (2). Rule of succession: is post hereditary? If not absolutely hereditary, must one of the family succeed, if fit? Do the lambardars nominate, or all the sharers? In either case how is a dispute settled—by the majority of votes, or by those who have most land, or who pay most revenue?

---

CHAPTER II.

---

PROVISIONS REGULATING THE POSITIONS OF THE LANDLORDS AND THEIR TENANTS.

*XVII.—Manner of paying rent.*

- (1). Does sîr pay rent? It sometimes pays a fixed rate per bîgha.
- (2). Do tenants pay the bachh, or an all-round rate, or wet and dry rates, or crop rents, or rent fixed on the quality of the land? If on wet and dry, is the wet rate calculated on actual or on potential irrigation? The former seems the general rule. Where batai is in force, what is the custom as to land lying fallow? Give rent instalments fixed by the settlement officer. Give custom as to leases and receipts.

*XVIII.—Tenants at fixed or privileged rates.*

- (1). In some villages the former zamîndars cultivate part of their former sîr, either rent-free or at fixed rates. In the same way persons are sometimes given some of the common land free of rent to live on. The terms of such holdings to be stated. For how long are they to be held? Can the payment be enhanced? In some cases the agreement is that it shall be enhanced if the new jama be enhanced, and in proportion to it, and similarly decreased if it be decreased. What rights have these tenants as to digging wells, planting baghs, and isolated trees? Can they transfer them? As a rule they can.
- (2). Are there any tenants at privileged rates? In some villages former zamîndars, in others particular castes, are favoured.

**XIX.—Customs, breach of which involve forfeiture of tenancy within meaning of section 93 of Act XVIII. of 1873.**

Customs to be stated.

**XX.—Rent-free grants.**

- (1). Rent is sometimes fixed on rent-free grants in lieu of service, but never collected. State customs.
- (2). Can grantees transfer their grants?
- (3). Name persons receiving cash payments in lieu of resumed rent-free grants, and the terms on which it is paid.
- (4). Give a list of existing rent-free grants. State how long ago they were given and the relationship of the present holder with the original grantee.

**XXI.—Houses.**

- (1). Rights of zamíndars and cultivators. The general rule seems to be that the former may build on the waste without permission of the sharers, but that the latter cannot.
- (2). Is rent collected from inhabitants, or help in wood, &c., given to builders? Generally no rent is taken.
- (3). When may zamíndars eject?
- (4). Can sharers or cultivators transfer their houses, and under what condition? If a house be abandoned, who can take possession of it?

**XXII.—Wells.**

- (1). List of pukka wells, their owners, and who have the right of irrigation from them?
- (2). The general rule is that cultivators can dig kucha, but not pukka wells without the consent of the zamíndars: the custom sometimes varies for tenants-at-will and tenants with a right of occupancy.
- (3). On ejectment, is a tenant ejected from his well in the land?
- (4). Custom as to water channels: the general rule is that they may be carried along boundaries of fields and through waste.
- (5). Is it the custom to hire out wells?

**XXXIII.—Irrigation from tanks and jhíls.**

- (1). List of such tanks.
- (2). May any one irrigate, or specified persons? If the latter, name them. Record any rent paid.

**XXIV.—Baghs.**

**(a.) Sharer's rights.**

The general rule is that a sharer may plant a bagh in his own separate land at his pleasure, but in common land only with the consent of the other sharers. Which of the seven rights mentioned in the subsequent section can zamíndars planting baghs in common land exercise?

**(b.) Cultivator's rights.**

What classes of tenants may plant baghs without consent? Is the former rent taken for land in which a bagh is planted or is it exempted from rent? The general rule is that it only pays as long as the land is cultivated, not afterwards; unless the bagh be cut down and not immediately replanted, which of the seven rights mentioned in the next section has a cultivator who plants a bagh? After eviction from his cultivation, does he retain any rights in the trees.

**XXV.—Isolated trees.**

- (1). In bhaiáchára estates, the general rule is that all trees in divided land belong to the owner of the land. Where land is held in common, to whom do trees in sár belong? Who owns trees on boundaries of fields? The general rule is that if they



are self-sown they belong to both sides equally ; if planted, to the planter. Who owns trees in common land ? The general rule is that self-planted trees are common ; but if a tree is planted, customs vary. If some wish to cut down trees owned in common and others do not, how is the dispute to be decided—by the majority of sharers or of lambardars ? In some villages the lambardars have full power without consulting the sharers.

(2). *Rights of mortgagors and mortgagees.*—The general rule is that the mortgagor has no rights as long as the mortgagee is in possession, but in some villages he can take dead trees. The general rule is that mortgagees can plant trees in mortgaged land, and that after the paying off the mortgage they remain owners of such trees, though they cannot cut or sell them without the mortgagor's permission. Can a mortgagor authorize a cultivator to cut down trees in his field ?

(3). *Cultivator's rights.*—As a rule, all residents, cultivators or not, have the right to trees within their enclosures and before their doors ; but the custom varies as to whether they may claim such trees if they have not planted them ; what rights in them remain after leaving the house ? Rights are of seven kinds :—

- a. Planting.
- b. Felling.
- c. Selling.
- d. Right to dead or fallen trees.
- e. Right to fallen wood.
- f. Right to trimmings.
- g. Right to produce.

State which of these rights the various classes of cultivators possess. Resident and non-resident tenants as a rule have the same rights, but generally occupancy tenants possess all these rights with regard to both self-sown and planted trees as long as they hold their fields, but not after relinquishment. Tenants-at-will, as a rule, have no rights, save by permission of the zamindar. Rules about trees on boundaries seem to be much the same as between sharers.

#### XXVI.—*Manure.*

(1). To whom does the manure belong and how is it divided ? Sometimes all belongs to the zamindars, sometimes only that of non-cultivators, sometimes none save their own. Sometimes cultivators own all the manure, sometimes their own ; non-cultivators also owning their own. Sometimes that of non-cultivators is stacked by sweepers and used in the common land ; sometimes it is stacked in common for the village, each person taking what he wants : in this case the zamindars sometimes have the preference ; sometimes again it is separately stacked by each person.

(2). What is custom as to selling manure to other villages, and by whom can it be done ? Sometimes the zamindars own the manure, but village cultivators have the right to as much as they want in the village, all the balance being sold by the zamindars. Sometimes, though owning the manure, the cultivator may not remove it even to his own fields in another village.

#### XXVII.—*Alluvion and diluvion.*

(1). Alluvion rights.

(2). In zamindari villages there can be no difficulty ; in the bhaiachara villages the custom varies. Sometimes, if a sharer's separate land be cut away, he can claim compensation at a fixed rate from village expenses yearly until the land is thrown up again and becomes culturable ; sometimes newly-thrown up land is common of the village, sometimes of the thok and patti it adjoins. Sometimes sharers take increments to their land, not exceeding 10 per cent. of the area of their share, and receive no compensation if less than 10 per cent. be cut away ; if more than 10 per cent. be thrown up it becomes common ; if more be cut away, the sharer's revenue is correspondingly reduced. State whether these rules apply to the village or the thok or patti.

(3). What are cultivator's rights? Generally, if all the land is cut away, the rent is given up; if part, reduced.

#### XXVIII.—*Village servants.*

Enumerate village servants. State their duties and what wages they receive. The chief are barbers, washermen, potters, dyers, water-carriers, khatiks, and chamars.

The disputes that arose during the preparation of this paper referred naturally to every section of it; but the majority of the disputes, and those most fiercely contested, arose between zamíndars and cultivators in regard to isolated trees and grazing in the fallow.

In this district, with its large area of revenue-free land, the enquiry into and the cases arising out of these tenures took up much time. This enquiry naturally divided itself into two great heads—(1) as to the validity of the tenures on which the grantees claimed to hold free of revenue; (2) the various rights in these tenures—that is, the relation of the persons owning the muáfi rights with those owning the zamíndari rights. To take these heads in order, 1st, as to the validity of the tenures on which the grantees claimed to hold free of revenue.

Revenue-free tenures. (a) Validity of the tenures.

As the khewats were prepared, a register of all lands not assessed to revenue was made, omitting only those where, on the face of the khewat, it was clear that the land paid no revenue as being under trees or as being uncultivated. A case was filed regarding each of these entries and enquiry made by the Assistant Settlement Officer.

In this enquiry there were two authorities on which to fall back:—

- (1). The decision of the Special Commissioners appointed to enquire into such cases.
- (2). The orders of the Settlement Officer at the last settlement, together with his reports and the orders of Government thereon.

The first of these refer only to large muáfi plots and whole villages, and no difficulty could arise in regard to them, as the present holder had always the order of the Special Commissioners to show. The whole of the difficulties arose with regard to the second class, because the original orders of the Settlement Officer are not in existence, and the men now in enjoyment of the grant have never copies of them to show. With regards to these, therefore, I shall state both the sources from which information was obtained and the principles that governed the decisions.

Mr. Tyler, the Settlement Officer, in his final report on the Muttra pargana, dated 13th May, 1840, states that he divided all the unregistered muáfi holdings of over 10 bighas in size into four classes:

- (1). Grants made to religious institutions of note deserving the support of Government.
- (2). Grants made to persons who have been uninterruptedly in possession since prior to the British rule.
- (3). Grants made to persons since the introduction of the British rule, but enjoyed for more than 30 years.
- (4). Grants made to persons and enjoyed for less than 30 years.

The first class he proposed to release in perpetuity, the second and third classes for life, while the fourth class he resumed at once. The Board of Revenue reported these proposals for sanction in their letter to the Secretary to Government, dated 21st September, 1841. The final orders of Government are contained in G. O. No. 497 of 2nd April, 1842; they liberally extended the proposed principles, ordering

the release of the second class (which Mr. Tyler proposed to release for life) to be made in perpetuity.

The order says :—

“The Hon'ble the Lieutenant-Governor has perused with much attention the remarks recorded by the Collector and Commissioner on the muafi tenures in this pargana. Owing to the great character of sanctity attaching to these tenures, and the religious purposes for which, in many instances, their proceeds are appropriated, which has preserved them from interference under various rulers for a long series of years, the Hon'ble the Lieutenant-Governor considers that the Collector acted most judiciously in not subjecting them to the strict letter of the law.

“The Collector, it is observed, proposes to divide these tenures into three classes, each to be separately disposed of by Government. In the first class the Collector would include all grants made to religious institutions which are viewed with reverence not only by the people in this vicinity, but by the Hindu community at large. The second class, which the Collector also considers entitled to peculiar consideration, includes those grants which have been held uninterruptedly for a series of years antecedent to the British accession.

“The third class embraces all grants held subsequent to the British accession, but for a longer period than 30 years. In the fourth class the Collector places all grants which have come into possession during the last 30 years.

“Of these four classes Mr. Tyler would recommend the grants of the first description to be released in perpetuity, and those of the second and third for the lives of the present incumbents.

“The tenures coming under the fourth head have already been resumed ; but, to obviate as much as possible the consequent distress, have been settled at half rent-rates with the ousted proprietors.

“Under consideration of the peculiar nature of these tenures, and the character of sanctity attaching to them in the eyes of the Hindu population, the Hon'ble the Lieutenant-Governor is of opinion that they should not only not be subjected to the strict letter of the law, but be treated with more than ordinary leniency.

“His Honor, therefore, is disposed to coincide in the view taken by the Commissioner, and considers it expedient that all the tenures should be admitted to the benefit of registry.

“Those tenures which come under the first class noted by the Collector as attaching to religious institutions of peculiar sanctity should, in His Honor's opinion, be released to the incumbents and their heirs, as also should those held under the second class, since, although it may not be very clearly proved, it may with certainty be presumed, that all that is required to constitute an hereditary title under the orders of the Hon'ble Court of May, 1838 has been complied with, viz., that two successions occurred before the commencement of the Company's rule.

“His Honor is therefore pleased to direct that no tenure coming under either of the above heads be subjected to investigation or interfered with, but left in the undisturbed possession of the occupants and their heirs.

“With regard to the tenures which have been acquired since the Company's accession, but held for a longer period than 30 years, the Hon'ble the Lieutenant-Governor is of opinion that, under the spirit of the orders of the Hon'ble Court already quoted, all such should be released to the present incumbents for the period of their lives. These tenures will, however, come severally under revision at the demise of the present incumbents, and be either resumed or continued, as the result of the enquiry may happen to show to be the proper and legal course.”

These orders disposed of all the muáfi plots of the Muttra pargana of over 10 bighas in size, concerning which investigation was then made, excepting one or two which were apparently omitted by mistake; but no report was made regarding similar plots in the other parganas of the district, although much the same principles were apparently adopted by the Settlement Officer in his investigations regarding them, and these therefore remain as yet unauthorized. All such grants were collected in the register locally known as register No. III. The orders of the Settlement Officer were, of course, *ultra vires*, but the existence of these muáfis was not brought to the notice of Government until 1848,\* when it was considered too late to interfere. By their G. O. No. 3056, dated 22nd May of that year, Government ordered that these grants should remain undisturbed until the next settlement, when they would be disposed of as seemed best to the Government of the day. All these plots have now been enquired into and reported to Government.

There remain further a few unregistered muáfis, on which no orders were passed at the last settlement, and some which have been granted since that date. The first of these were all the patches in separate ownership in villages which are or were themselves entirely released from the payment of revenue. In some cases the revenue-free grantee laid claim to these holdings as sub-tenures of his own creation, and in others it was allowed that they were independent grants. The universality of their omission seemed to point to an oversight, especially as in many cases the grant of the patch of land was proved to be of earlier date than that of the grant of the village. In the cases of villages that were resumed at the settlement and subsequently released by the special commission, it seems singular that these men never, in any case, asserted their individual rights before the Commissioners. The grants of revenue-free land made during the currency of the settlement are confined to Muttra itself. In 1867 a large area of the cantonments was given up by the military authorities, and the land was made over by the Collector to persons in receipt of pensions in lieu of lands originally taken possession of by the Government to form the cantonments. No trace of any sanction to these proceedings could be found. Both these classes have been treated similarly with the plots mentioned in the last paragraph.

There is yet another class of muáfis in the district—namely, villages and parcels of land held free of revenue by rulers of foreign states. The latest order regarding them is contained in the despatch of the Court of Directors, No. 19, dated 24th April, 1840, of which the 6th para. is as follows:† “When an independent chief holds lands even on ordinary rent-free tenure, his title should not be lightly called in question, and an investigation when requisite should, as Lieutenant-Colonel Aloes pointed out, be made by a political and not by a revenue officer.” Muáfis of this class have been entered in a separate register.

The new measurements being in acres and fractions of an acre, all plots under six acres in size were included in the register known as that of muáfi plots under 10 bighas.

In para. 12 of his report on the Muttra pargana already referred to Mr. Tyler says:—

“All muáfis under ten bighas in size have been enquired into, and all cases falling strictly under clause vii., section 2, Regulation XXXI. of 1803, have been released for the life of the present occupants.”

It is not clear whether his remarks apply to the Muttra pargana only, or to the whole district; apparently they applied to the whole district. It is not clear either on what authority Mr. Tyler proceeded in releasing these plots for life only, as the clause

---

\* Board's Proceedings, Nos. 38 to 49 of May 2nd, 1848.

† See also Sadr Board's Circular No. 6 of May 2nd, 1856, para. 8.

in the regulation referred to does not authorize any such course, while by the Sadr Board's Circular of April 9th, 1839, the liberal wording of the law was considerably widened. In fact Mr. Tyler himself seems subsequently to have seen the illegality of his procedure, for on 24th December, 1840, he asked the Board's orders as to how he was, on the death of the incumbent, to treat the case of such tenures under ten bighas as were released for life at the settlement. The Board's orders were conveyed in their letter of 4th May, 1841. They say:—

“The release of tenures under ten bighas held for charitable purposes must be maintained as long as they remain so applied, and those tenures which have been released for life to the incumbents at the time of settlement must be retained by the heir of the ex-muáfidars on the present favourable terms until a renewal of the settlement.”

The meaning of this sentence is not very clear, especially as in a former paragraph of the letter the Board ordered that in cases of resumption assessment should be made with ex-muáfidars at moderate rates. It appears, however, that they must have meant that no muáfi under ten bighas released for life should be resumed on the death of the grantee; and such was the interpretation put on it by Mr. Tyler himself, for on the receipt of these orders he at once released all resumed muáfis of this nature, even taking them from the zamíndars with whom in some cases a settlement on the death of the grantee had been made.

As the only contemporary record of the proceedings of the Settlement Officer contained in register No. 7 for the Muttra pargana only is not traceable in the Board's records, and no copy of it is in existence, the investigation into these small grants was involved in some difficulty. In no cases were these plots recorded in the khewats before the revision of records which took place about 1850, and even up to this settlement some were not recorded in any of the patwáris' papers, except the jama-bandi. Before the settlement, a paper called the *juz-o-kul* was prepared by the kanúngos for each village; it is of no judicial weight, but where in existence was of great value, as it gave the history of the various muáfi grants. The first existing trace of a systematic attempt to bring all the muáfi grants into one register is register No. 5, prepared about the year 1847; it was found for parganas Jalesar, Sádabad, Mát, and the Mahában villages that came from Mát; while in remaining villages of Mahában, in Muttra, Chháta, and Noh Jhil, the only trace of it was an unverified rough copy kept by the kanúngos; and in Kosi there was neither the original nor the unverified copy. On this register was founded the English register sent to the Board in 1848.\* It was unfortunate, however, that the two registers did not correspond; sometimes whole villages, and often entries, were omitted from latter. Where no special reason can be found for such omission, it has been assumed that the discrepancy results from a copyist's error. It is unfortunate also that the register No. 5 was so perfunctorily prepared that often names of persons, and sometimes even of villages, were untraceable, while the names recorded were frequently those of persons who died many years before the compilation was made. The revision khewats are fuller than these registers, as in some cases land which was then under bághs, and also land given rent-free by zamíndars for village services and not released at last settlement, were recorded as revenue-free grants. In such cases, if the land be cultivated, it has been resumed; if not, the entry calling it a revenue-free grant has been struck out. Another register was prepared after the mutiny in 1859; this of course differs from all the others and was of little use.

All these small grants were originally given by the zamíndars. The religious grants were chiefly made to local temples or *takias*; and by far the larger proportion of charitable ones were made for the performance of certain village services, as for lighting the Holi fire (*kherapati*) and to the village priest (*purohit*). Many of them were

\* Proceedings of the Sadr Board of Revenue of October 3rd, 1843, Nos. 22 to 28.

given to *bhāts*, and some to Muttra *chaubés*, local *fakirs*, and Soron Brahmins. In Chhāta and Kosi these grants are rare, but in the other parganas, especially Muttra, they are very numerous. The land is naturally the worst in the village, and in nearly all cases where the grantee is a resident is cultivated by him. Originally all these plots were rent-free, and not revenue-free; but as the distinction was not preserved at last settlement, and as they were included in the *khewats* at the revision and have been always since treated as revenue-free grants, it is impossible to disturb the existing state of things at this late period. The general rule has therefore been not to resume any grants where the heir of the original grantee is in possession, provided that the condition (if any) attached to the grant be fulfilled. The cases of resumption, which have not been numerous, may be grouped under two heads:—

(1)—Where the zamindars have ousted the original grantee or his heirs, and either kept the land themselves or given it to an outsider.

(2)—Where the land was released on some condition, which condition has been violated. This only refers to religious *muāfi*. It has not been considered that any condition attaches to charitable grants (see sections 158 to 161 of Sadr Board's Circular, dated 9th April, 1839).

The customs of the Soron Brahmins have caused peculiar difficulties in their case. These men are divided into guilds, and all the earnings of a guild are in common. A grant made to a person is therefore in effect made to the guild to which he belongs, and the rent is collected by a single agent who goes round the villages at uncertain intervals of one or two years. The villagers therefore do not know who actually gets the proceeds of the plots.

The second head of the enquiry was that into the rights, *inter se*, of the various sharers in revenue-free estates. In some of these estates the (b) Rights of *muāfidars* and zamindars. revenue-free grantee is also in possession of the zamindari rights. In other cases these rights are in the possession of a separate zamindar or of a village community. In some cases where the zamindari and the *muāfidari* rights are distinct, the owners of the former had previously been admitted to the managing possession of the estate, paying a fixed sum yearly to the *muāfidar*, while in others the *muāfidar* had been put in possession; the zamindars, in lieu of their rights, receiving either a percentage on the collections, or else some land free of all payment. Of the 52 entirely revenue-free estates in the district there are 41 in which zamindari rights exist; of these 41 there are 25 in which, previous to this settlement, the zamindars had been admitted to managing possession. Of the remaining 16, in which the zamindars were out of possession, applications for engagements to be taken from them were made by the zamindars of 13. The existing orders are those on Kobi of the Moradabad district contained in G. O. No. 133A. of 1868. By this ruling the zamindars were not to be admitted to engagement when it was found that their rights had dwindled to the receipt of a cess on the collections, the revenue-free grantee having by prescription the right to the management of the estate. Acting on this order, the applications in the cases of the villages of Ronchi and Palson of Muttra and Bilothe and Ajhai Buzurg of Chhāta were dismissed. The application in the case of Mandaura of Muttra was dismissed, as a final arrangement had been come to at the revision. There remained 8\* cases in which the zamindar's claim was admitted. In all of these there is a resident village community who, even when out of nominal managing possession, exercised rights which clearly distinguished the members of it from mere cultivators. The rights they owned of course varied in every estate; but as a rule they cultivated the whole area at a low fixed rent, disposing of the land recorded in their names at their pleasure. They had certain rights in the fallow and to trees such as cultivators can rarely claim, and even in some cases it had been the recognized custom for a

\* Bati, Ganeshra, Atas, Mundesi, Mungarra, Amra, Gangrauli, Jahangirpur.

man's cultivation to pass to the purchaser of his share in the village, though such share only nominally conveyed the right to receive a certain percentage on the collections. Such rights as these are indefinite and difficult of record, and in consequence of this indefiniteness there was in many of the villages a continual struggle between the various owners which was highly prejudicial to the welfare of the estate. The zamíndars, as the residents and as the actual cultivators, were the more likely to guarantee the future prosperity of the villages, which mainly depended on their exertions, and this pointed to them as the men with whom the arrangements should be made. The position of the muáfídar was distinctly one of encroachment, and they could only claim to be placed in a position no worse than they had hitherto held, all future increment going to the men who would be instrumental in causing it. Settlements were made at half-estimated assets, but the muáfídar's net income was hardly lowered, for so low were the rents in many villages, while others were leased to outsiders on favourable terms, that the actual grantees received but little more before the settlement than they do now.

The fairing of the records presents little that is worthy of remark. It was merely a work requiring the greatest care and vigilance. One copy of the whole records was made in Urdu for the Collector's office, and one in Hindi for the patwáris, a copy of the khewat and wajibularz in Urdu being made for the tahsili.

The total number of cases disposed of during the course of the settlement has been no less than 76,561. As under the new procedure enhancement can be sued for and obtained against all the right of occupancy tenants in an estate in one and the same suit, this number of cases does not represent much less than 100,000 separate decisions; of this number of cases 1,666 were appeals to the Settlement Officer from orders of subordinate officers, and of these nearly one-fourth were in enhancement cases. Omitting these enhancement appeals, in only about one and a half per cent. of the emaining cases were the parties dissatisfied with the judgment of the subordinate court—a very satisfactory proportion.

Cases under Regulation VII of 1832.	Cases under Acts X. of 1859 and XIV. of 1863.	Partition.	Union of maháls.	Boundary disputes.	Admission to or exclusion from settlement.	Sub-settlement.	Cases arising out of the preparation of the record of rights.	Rent cases.	Distribution of assessment.	Applications under Act XVIII. of 1873.	Miscellaneous.	Appeals to Settlement Officers from the orders of their subordinates.	Total.
5,540	439	544	2	1,836	51	3	40,800	8,749	935	4,836	21,160	1,666	76,561

*Investigation into the tenures and rights of all individuals holding property in Qasba Muttra.*

This case arose out of an enquiry into the nazúl land of the Muttra city; but before it had gone far, it was found that it would be impossible to come to any decision on this smaller question without coming to some understanding as to the position of the various persons owning property in the block of land measured for the sake of convenience in one lump and called Qasba Muttra: for, until this settlement, no enquiry and record had been made.

The persons owning property in Muttra may be divided into the following five heads :—

- (1.) Government.
- (2.) The heirs of the Lala Babu.
- (3.) The owners of muáfi and resumed muáfi grants.
- (4.) The owners of land and houses in the city.
- (5.) The old zamíndars.

The object of the enquiry was therefore to decide on the position of each of these five classes, and to discover how best their individual rights might in the future be protected.

But little bearing on this point is known of the early history of Muttra city. It would appear that the old city stood to the west of the present one, and that the present city was built in the time of Abdul Nabi Khan, a governor of the reign of Aurangzeb. The kázis of the Kushak muhalla were then the owners of the land around the city, but that they had only limited rights, and none within the city boundary, appeared from two facts :—

(1.) When Abdul Nabi wished to build his mosque (still standing), he purchased the land, not from the kázis, but from the kasáís or butchers who had shops there.

(2.) He gave permission to whoever wished to build houses and make gardens along the river-bank, which was accordingly done to a large extent.

It, therefore, appeared that the city itself is an imperial one.

The kázis continued in possession of their rights, whatever they were, until the time of the Játs, when the then representative of the family, Saiyad Bakar, quarrelled with the local governor, and, fearing evil results to himself, made over his rights to some Chaubés, some Mallahs, and one Daryao Khan Mirdha. When the English conquered the district the rights of the Chaubés alone seem to have been recognized, and the first settlement was made with Sheo Lal Chaubé as mukaddam. Imam Baksh, a son of the Mír Bakar above mentioned, brought forward a claim, but dying before it could be heard, his suit fell through and has never since been revived. About the same time, too, some enquiries were made as to what was nazúl, and the following lands were then sold, Sarai Mustafa Khan, the *tila* outside the Bhartpur gate, the Kattrá Badshahi in the city ; but the enquiries were not concluded.

In 1812 (Sambat 1869) the then Chaubé landholders, Bishna, Ajita, Sheo Lal, Ghisa, and Jwala, calling themselves mukaddams, gave over their rights to the Lala Babu, who engaged to pay them Rs. 150 yearly and 5 per cent. on the collections; and two documents embodying these terms were executed—one being a deed of gift on the part of the Chaubés, and the other an agreement on the part of the Lala Babu (sapurdar). The history of this person and his family, and an account of how he acquired his property, will be found in Mr. Growse's Muttra Memoir, Part I, pp. 132-133-134. The Chaubés have brought forward their claims to be engaged with at every settlement, and in the interval have employed themselves in skirmishes in the civil courts ; but in every case they have been unsuccessful.

The last settlement of Muttra was made by Mr. Tyler in 1841, and, according to his final rubakar, dated April 27th, 1841, the area was then divided as follows :—

			B. bis.				B. bis.
1. Arazi bandobasti	...	...	563 11	...	{ Bangar	...	378 0
2. Zabti muáfi	...	...	1,350 18	...	{ Khádar	...	185 11
3. Muáfi	...	...	1,347 0				
4. New fallow	...	...	9 0				
5. Old "	...	...	66 0				
6. Shor, &c.	...	...	1,574 19	...	{ Nazúl	...	122 0
				...	{ Town	...	608 0
				...	{ Baghs and cemeteries	...	80 7
				...	{ Ghair mumkin, tila, &c.	...	764 12

This settlement was not accompanied by any record of rights.

To the settlement succeeded the revision of records. The papers connected with this were lost in the mutiny ; but if we are to believe the Hindi record which the patwári has preserved, the Rani Kattyani, the then representative of the Lala Babu, had



herself entered as owner of every rood of land except muáfi and resumed muáfi, and the agreement that was drawn up was for Qasba Muttra with the Rani Kattyani as the sole zamíndar.

Advantage was naturally taken of this, and by 1858 her pretensions had risen so high that she claimed to be zamíndar not only of the land round the city, but of the city itself; she claimed to have the right to all the manure of the city; she claimed that the owners of the resumed muáfis were mere pattadars or inferior proprietors; in short, she claimed to exercise over the whole city of Muttra the same right that any zamíndar could claim over any petty village in the district.

Such was the state of affairs when Mr. Best took over charge of the district in 1858. The course that he pursued resulted in three groups of cases, and as these cases were all carried up to the Sadr Board on the one side and the Sadr Diwani on the other (not being finally concluded until 1865), they are of the utmost importance in determining the situation of all parties in regard to the city of Muttra.

These three groups of cases are :—

- (1) Relating to alluvial lands.
- (2) Relating to manure.
- (3) Relating to partition.

(1) The facts of this case are set forth at length in Mr. Best's letter to the Commissioner, No. 193 of 22nd September, 1859. 228 bíghas 19 biswas were thrown up by the river near the Jaisinghpura border of the city abutting on some gháts and resumed muáfi lands, but separated from any khálsa fields. The heirs of the Lala Babu assumed possession of this land and collected from it. When Mr. Best began to enquire into the matter, the khálsa zamíndar put forward her claim to be the zamíndar of the whole of Qasba Muttra; pleaded that 4,912 bíghas had been settled with her; that the increment was not 10 per cent. of the whole area, and that therefore the Revenue authorities had no right to interfere. The Collector, however, held that the heirs of the Lala Babu were only settled with for 563 bíghas 11 biswas of land; that their claim to be zamíndars of the whole area of Muttra was absurd; and that their claim to hold lands thrown up at one side of the city on the ground that they owned land on the other side was untenable. The Collector accordingly made the land into a separate mahál, calling it Retiya mahál, and held it khám. Appeals to the Commissioner and the Board of Revenue were unsuccessful, and suits brought in the civil courts and carried to the Sadr Diwani were equally decided in favour of Government. This Retiya mahál is still held khám.

(2) *Relating to manure.*—Mr. Best found that certain men with manure objected to pay the fees for crossing the ghát on the ground that they had paid the zamíndar for the manure and were carrying it to their fields. This led to enquiries, in the course of which he found that the heirs of the Lala Babu claimed all the sweepings of the city; that they took an enhancement on the rent from their own tenants, and agreed with outsiders at so much a bígha and with the cultivators of muáfi lands at so much a well; and that they also exacted some transit duties on goods, and that the value of this manure alone was nearly Rs. 3,000 a year. The Lala Babu's agent pleaded that suits brought by other persons against him for the right of this manure had been dismissed, and that the Collector on December 12th, 1856, had given him a summary decree against a railway engineer for the value of some manure he had taken for fuel. Mr. Best held that the settlement had omitted to come to any decision on this point, and took over the manure as Government property. Again his orders were up-held on appeal, and in the civil courts up to the Sadr Diwani.

(3) In the partition case the Lala Babu's heirs boldly claimed that they had superior rights in Muttra, all the other owners being inferior proprietors. Partition was disallowed by the Sadr Diwani on the ground that the arrangements made at the settlement could not be interfered with during the currency of the settlement; they also held that there was no proof that the Lala Babu held any talúkdari rights in Muttra.

After this case there was a lull. The only other case was when the land of an old road was claimed in 1869 by the heirs of the Lala Babu, but given by the Collector to some owners of resumed muáfi in exchange for land for a new road taken from them. The heirs of the Lala Babu appealed to the Commissioner on the old ground that they were zamíndars. The appeal was dismissed, and there the matter ended.

These cases proved clearly three points :—

1st.—The manure case showed that the heirs of the Lala Babu have no rights whatever in the city of Muttra.

2nd.—The Retiya mahál case showed that they are not even zamíndars of the land around the city, for one of the rights of such a status would be that to alluvial accretions to any part of it.

3rd.—The partition case and the road case show that, in spite of the repeated decisions against them, the Lala Babu's heirs still consider themselves zamíndars of Qasba Muttra, and that therefore the matter must be enquired into and set at rest.

They further show clearly the light in which the rights of the heirs of the Lala Babu have been regarded during the last 17 years by the Revenue authorities.

As regards the rights of the various persons interested it was decided as follows :—

(1.)—*The old zemíndars.*—Their claim to engagement for the whole estate, on the ground that the agreement entered into between their ancestors in 1812 and the Lala Babu had been broken, cannot be entertained. They have been excluded from several settlements, and their claim is now obsolete. They still receive a yearly allowance from the Lala Babu, and they still collect some cesses payable by certain cultivators, muáfidars inhabitants of and traders in certain bazars.

(2) *The owners of houses in the city.*—With these the settlement has no concern. But the Lala Babu, as zamíndar, has no rights of any kind in the city ; any rights he may possess there are those of a private individual.

(3) *The owners of resumed mudfi grants and muáfidars.*—These men are perfectly independent of the Lala Babu ; their rights have been recorded in a separate patti, and they have been allowed, if they wish, to chose their own lambardar.

(4) and (5) *The relative rights of Government and the Lala Babu.*—The mahál Retiya will continue to be held direct. In the uplands the course of litigation would have allowed us to have confined the Lala Babu's heirs to the land actually settled with them at the last settlement—that is, the then cultivated area ; but, unrestrainedly, they had been allowed to break up fresh land, and in some cases even Government had consented to rent from them mounds and other places which were required for buildings or for temporary purposes. They were therefore engaged with for this.

The importance of this case seemed to render some notice of it here necessary.

## CHAPTER VII.

### NOTICE OF SUBORDINATE NATIVE OFFICERS.

#### *Deputy Collectors.*

*Ali Muhamad Khan.*—The share taken by this officer in the work has already been noticed; he was unfortunately rough tempered, but his integrity and honesty were beyond doubt. He was possessed of great originality, immense industry, and a clear common sense. In case work he was invaluable and his decisions excellent.

*Debi Din.*—In this district this officer hardly sustained the reputation with which he came; he was, however, for a long time suffering from the disease which eventually killed him.

*Imam-ul-lah*—Was chiefly employed in enhancement suits and in attesting jama-bandis; he was of great assistance, being industrious and hard-working, though rather apt to fall into a groove.

*Inayat Ali and Kamal-ud-din.*—Mr. McConaghey was disappointed in the work of these officers.

*Inayat Hussain*—Was employed in boundary work from October, 1871 to December, 1872, when he was transferred to Hamírpur.

*Fuzl Azim.*—Mr. McConaghey was satisfied with his work; during his six months of office at Jalesar he did good service in deciding enhancement cases and in pushing on the preparation of the record of rights.

#### *Subordinate officials.*

*Jainti Prasad*—Was sherishtadar during almost the whole of the settlement, and during all that time he carried out the labourious duties of the office to the complete satisfaction of Mr. McConaghey and myself. He has a very good knowledge of English and is exceedingly quick and accurate at figures, and this is combined with a retentive memory and great industry. In addition to his proper work, he was of the greatest assistance in preparing assessment figures, and towards the end of the time was in charge of the final revisions of the faired vernacular records previous to filing.

*Banké Bihari Lal*—Is another promising young officer. He is a good English scholar and quick at figures. With Jainti Prasad he prepared all the assessment statistics; he was also in charge of the statistical office of Mát, and faired and filed the vernacular records of Muttra and part of Mát.

*Salig Ram, Sadr munsarim*, made for himself a great name for his honesty. He demarcated the soils of Sadabad, Mahában, and Muttra, and made the preliminary attestation of the jamabandis of Muttra, Chháta and Kosi. He is now a tahsildar in Bánda.

*Shib Lal, Sadr munsarim*, demarcated the soils of Kosi and the greater part of Mát and assisted in Chháta and Muttra. He has a great knowledge of agricultural matters. He is now divisional kanúngo in Ágra.

*Kunhaiya Lal, Sadr munsarim*, was in charge of the preparation of the rough records of Mát and part of the demarcation of soils of the same tahsil, and also of the

fairing of the records of Ohhâta and Kosi. He has a very fair knowledge of English, is hard working and trustworthy.

*Tajamul Hussain, Sadr munsarim*, was in charge of the statistical office of all the district except Mât, and in that tahsíl he made the preliminary attestation of the jamabandis. Is a first class officer all round.

*Sadik Hussain, Sadr munsarim*, now a tahsildar in Banda, was in charge of and faired and filed the records of the Jalesar pargana.

R. S. WHITEWAY.

# TABLE OF CONTENTS.

## PART II.

### PARGANA SAHPAU.

	Page.
History	122
Boundaries, area, and population	ib.
Increase in population since last settlement	124
Physical features	ib.
Sources of irrigation	ib.
The weed baisuri	ib.
Ploughs and cattle	ib.
Towns and markets	ib.
Communications	125
Crop statistics	ib.
Character of the cultivation	ib.
Proprietary statistics	126
Statistics of cultivating occupancy by caste	ib.
Occupancy statistics now and at revision of records	127
Past fiscal history	ib.
History of transfers	129
Prices realized on transfer	130
Comparison of past and present areas	ib.
Increase in cultivation	131
Waste land	ib.
Increase in irrigation	ib.
Determination of soil rates and assumed rental deduced from these rates	ib.
Assessment	ib.
Financial results	ib.
Rentals before and after enhancement...	132
General statement	133-134

### PARGANA SADABAD.

History	135
Changes in constitution since last settlement	ib.
Area and population	ib.
Boundaries and physical features	136
Sources of irrigation	ib.
Ploughs and cattle	137
Communications	ib.
Principal towns and villages	ib.
Distribution of crops	ib.
Character of the cultivation	ib.
Proprietary statistics	138
Statistics of cultivating occupancy by caste	ib.
Occupancy statistics now and at revision of records	139
Fiscal history	ib.
Transfers	140
Prices realized on transfer	141
Comparison of past and present areas	ib.
Soil rates	142
Estimated rental based on rates	ib.
Assessment	143
Financial results	ib.
Rentals before and after enhancement...	ib.
General statement	144-145

### TAHSIL MAHABAN.

History	147
Changes in the constitution of the pargana since last settlement	ib.
Boundaries	148
Description	ib.

	<i>Page.</i>
Balsuri ... ..	149
Jamna valley ... ..	<i>ib.</i>
Area and population statistics ... ..	<i>ib.</i>
Increase in population... ..	150
Principal towns and villages ... ..	<i>ib.</i>
Plough and cattle statistics ... ..	<i>ib.</i>
Sugarcane presses ... ..	<i>ib.</i>
Communications ... ..	151
Irrigation statistics ... ..	<i>ib.</i>
Crop statistics ... ..	152
Statistics of cultivating occupancy by caste ... ..	153
Comparison of present cultivating statistics with those of the revision of records ... ..	154
Changes in the proprietary possessions of the different castes since 1808 ... ..	<i>ib.</i>
Proprietary statistics ... ..	155
Transfers ... ..	<i>ib.</i>
Prices realized at transfer ... ..	156
Fiscal history from the commencement of our rule until the settlement under Regulation VII. of 1822 and IX. of 1833 ... ..	157
Fiscal history of talúqas Ar, Sonkh and Madim, up to the commencement of the expired settlement ... ..	<i>ib.</i>
Fiscal history of the expired settlement ... ..	158
(a) Mahábas as constituted in 1832— ... ..	<i>ib.</i>
(b) The old Mát villages ... ..	159
(c) Tappa Sonai ... ..	<i>ib.</i>
(d) Tappa Raya ... ..	160
(e) The talúqas and villages received from Mursan ... ..	<i>ib.</i>
General summary ... ..	162
Comparison of past and present areas ... ..	<i>ib.</i>
System of inspection, mode of determining soil rates with rates used in the assessment, ... ..	163
Estimated rental based on rates ... ..	164
Assessment ... ..	165
Financial results ... ..	<i>ib.</i>
Rentals before and after enhancement ... ..	166
General statement ... ..	167—176

## TARSI MUTTRA.

Constitution and history ... ..	177
Description ... ..	<i>ib.</i>
Details of area ... ..	178
Communications ... ..	<i>ib.</i>
Population ... ..	<i>ib.</i>
Principal towns and villages ... ..	<i>ib.</i>
Plough and cattle statistics ... ..	<i>ib.</i>
Sugarcane presses ... ..	<i>ib.</i>
Balsuri ... ..	<i>ib.</i>
Irrigation ... ..	<i>ib.</i>
Crop statistics ... ..	179
Statistics of cultivating occupancy by caste ... ..	180
Comparison of cultivating occupancy at revision with that at the preparation of rough records ... ..	181
Character of the cultivation ... ..	<i>ib.</i>
Changes in the proprietary possession of the different castes and clans since the commencement of British rule ... ..	<i>ib.</i>
Proprietary statistics ... ..	182
Transfers ... ..	<i>ib.</i>
Prices fetched on transfer of land ... ..	183
Tenures ... ..	184
Comparison of past and present areas ... ..	<i>ib.</i>
Soils ... ..	<i>ib.</i>
Khadar ... ..	<i>ib.</i>
Rates ... ..	185
Application of soil rates to soil areas ... ..	186
Fiscal history including the results of the present revision of settlement ... ..	187
(a) Pargana Aring ... ..	<i>ib.</i>
(b) Pargana Muttra ... ..	188
(c) Pargana Sonkh ... ..	189

					<i>Page.</i>
(d) Pargana Gobardhan	...	...	...	...	192
(e) Pargana Sonna	...	...	...	...	193
Summary of financial results of the present revision of settlement for the whole tahsil,					194
Rentals before and after enhancement	...	...	...	...	195
General statement	...	...	...	...	196—203

## TAHSIL CHHATA.

General description	...	...	...	...	204
Communications	...	...	...	...	<i>ib.</i>
Physical features	...	...	...	...	<i>ib.</i>
Detail of areas	...	...	...	...	205
Natural soils	...	...	...	...	<i>ib.</i>
Sources of irrigation	...	...	...	...	206
Constitution of the pargana	...	...	...	...	<i>ib.</i>
Cultivation	...	...	...	...	207
Crop statistics	...	...	...	...	<i>ib.</i>
Cultivating statistics	...	...	...	...	208
Cultivation by caste	...	...	...	...	209
Tenures	...	...	...	...	<i>ib.</i>
Transfers	...	...	...	...	210
Proprietary statistics	...	...	...	...	211
Caste	...	...	...	...	<i>ib.</i>
Population statistics	...	...	...	...	212
Ploughs and plough cattle, &c.	...	...	...	...	<i>ib.</i>
Fiscal history	...	...	...	...	213
Soils	...	...	...	...	214
Rates	...	...	...	...	215
Estimated rentals at assumed rates	...	...	...	...	217
Financial results	...	...	...	...	219
Rentals after enhancement	...	...	...	...	<i>ib.</i>
General statement	...	...	...	...	220—224

## TAHSIL KOSI.

General description and physical features	...	...	...	...	225
Details of area	...	...	...	...	226
Communications	...	...	...	...	<i>ib.</i>
Sources of irrigation	...	...	...	...	227
Increase in irrigation since last settlement	...	...	...	...	<i>ib.</i>
Constitution of the pargana	...	...	...	...	<i>ib.</i>
Character of the cultivation	...	...	...	...	<i>ib.</i>
Crop statistics	...	...	...	...	<i>ib.</i>
Comparison of cultivating statistics at revision with those at the preparation of rough records	...	...	...	...	229
Cultivating statistics by caste	...	...	...	...	<i>ib.</i>
Proprietary bodies and tenures	...	...	...	...	230
Proprietary statistics by caste	...	...	...	...	232
Transfers	...	...	...	...	<i>ib.</i>
Population statistics	...	...	...	...	234
Plough and cattle statistics	...	...	...	...	<i>ib.</i>
Fiscal history	...	...	...	...	<i>ib.</i>
Comparison of areas	...	...	...	...	235
Soils	...	...	...	...	<i>ib.</i>
Rates	...	...	...	...	236
Application of soil rates to soil areas	...	...	...	...	<i>ib.</i>
Financial results	...	...	...	...	237
Rentals after enhancement	...	...	...	...	<i>ib.</i>
General statement	...	...	...	...	238—239

## TAHSIL MAT—NOR JHYL.

General description	...	...	...	...	240
History	...	...	...	...	<i>ib.</i>
Constitution of the pargana	...	...	...	...	241
Boundaries and physical features	...	...	...	...	<i>ib.</i>
Communications, &c.	...	...	...	...	242

						Page,
Markets	...	...	...	...	...	243
Irrigation	...	...	...	...	...	ib
Cultivation	...	...	...	...	...	244
Baisuri	...	...	...	...	...	ib.
Crop statistics	...	...	...	...	...	ib.
Tenures	...	...	...	...	...	246
Population	...	...	...	...	...	ib.
Proprietary statistics	...	...	...	...	...	247
Cultivating statistics	...	...	...	...	...	ib.
Castes	...	...	...	...	...	249
Transfers	...	...	...	...	...	250
Noh Jhli fiscal history	...	...	...	...	...	257
Mât fiscal history	...	...	...	...	...	258
Method of inspection and soils adopted for assessment...	...	...	...	...	...	258
Rates	...	...	...	...	...	258
Rental at assumed rates	...	...	...	...	...	258
Assessment	...	...	...	...	...	261
Financial results	...	...	...	...	...	ib.
Rentals before and after enhancement	...	...	...	...	...	ib.
General statement	...	...	...	...	...	262—269

**MEMO. ON THE SETTLEMENT OF THE VILLAGES TRANSFERRED FROM THE AGRA  
TO THE MUTTRA DISTRICT.**

General description	...	...	...	...	...	270
Irrigation	...	...	...	...	...	ib.
Population and castes of population	...	...	...	...	...	ib.
Agricultural statistics...	...	...	...	...	...	ib.
Fiscal history	...	...	...	...	...	ib.
Comparison of past and present condition	...	...	...	...	...	271
Crops	...	...	...	...	...	272
Prices	...	...	...	...	...	ib.
Population	...	...	...	...	...	ib.
Cultivating tenures	...	...	...	...	...	ib.
Rent-rates	...	...	...	...	...	273
Assessment	...	...	...	...	...	ib.
Financial results of revision of settlement	...	...	...	...	...	ib.
General statement	...	...	...	...	...	275—278



## PART II.

### PARGANA SAHPAU.

History—Boundaries, area, and population—Increase in population since last settlement—Physical features—Sources of irrigation.—The weed baisuri—Ploughs and cattle—Towns and markets—Communications—Crop statistics—Character of the cultivation—Proprietary statistics—Statistics of cultivating occupancy by caste—Occupancy statistics now and at revision of records—Past fiscal history—History of transfers—Prices realized on transfer—Comparison of past and present areas—Increase in cultivation—Waste land—Increase in irrigation—Determination of soil rates and assumed rental deduced from these rates—Assessment—Financial results—Rentals before and after enhancement—General statement.

SAHPAU is now part of the Sadabad pargana, with which it was incorporated shortly after last settlement; but for the purposes of this report History. it will be more convenient to treat of it separately. During Akbar's reign it was included in the Jalesar mahal of Sirkar Agra. It subsequently became a distinct revenue subdivision, and, for some years previous to the British conquest, formed a portion of the territory held as "jaidad" by Generals DeBoigne and Perron from Scindhia for the maintenance of their brigades. On the annexation in 1803 it was with other parganas placed under the jurisdiction of the Collector of Etáwah, but on the constitution of the new district of Aligarh in 1804 it was attached to it. In 1815 it belonged to the Sub-Collectorate of Sadabad, in charge of which Mr. Boulderson was placed by the Board of Commissioners, and in the following year it was transferred with parganas Firozabad and Khandauli to Agra. It continued under the control of the Collector of Agra until 1824, when it was re-annexed to Sadabad, which had just been raised to the position of a district. On the removal of the sadr office to Muttra in 1832 it remained in subordination to the tahsildar of Sadabad, as it is at present.

The pargana is a small rectangular block of country separating Jalesar from Boundaries, area, and Sadabad, which lie respectively to the east and west of it, and population. these parganas bound it on all sides except on the north, where it adjoins Háthras. It consists of 36 villages and contains 63 inhabited sites. The total area is 21,258 acres, of which 18,377 acres, or 86·4 per cent., are under cultivation.\* The average village area is 590 acres, and the average area to each inhabited site is 337·4 acres. The population by the census of 1872 was 21,338, being 647 to each square mile of area and 762 to each square mile of cultivation; of these 21,338 inhabitants 9,842 are returned as agriculturists and 11,496 as non-agriculturists. The average population per site is 338, or just one individual for every acre of area. The total number of houses is 4,189, averaging five individuals to each house. The numerical strength of each caste represented in the pargana, subdivided into agriculturists and non-agriculturists, is as follows :—

Caste.	Agricul- turists.	Non- agricul- turists.	Total.	Caste.	Agricul- turists.	Non- agricul- turists.	Total.
Chamár ...	1,009	2,507	4,016	Kahar ...	21	298	319
Brahman ...	2,364	1,841	3,705	Aheriya ...	125	186	311
Abir ...	1,197	267	1,464	Teli ...	93	193	296
Thákur ...	1,205	250	1,455	Mahájan ...	68	226	299
Ját ...	1,099	193	1,292	Darzi ...	6	188	194
Gararia ...	688	431	1,119	Khatik ...	50	110	160
Baniya ...	151	809	1,062	Sonar ...	...	148	148
Muhammadan ...	193	752	945	Chobdar ...	95	51	146
Kachhi ...	386	211	597	Bhát ...	30	98	128
Barhai ...	177	419	596	Banjára ...	31	95	126
Nai ...	99	424	523	Jogi ...	...	114	114
Bhangt ...	5	518	523	Karhera ...	43	149	192
Koli ...	...	457	457	Other castes ...	88	387	475
Kumhar ...	55	319	374				
Dhobi ...	63	262	344	Total ...	9,842	11,496	21,338

\* Colonel Anderson's survey area is given with that of Sadabad.

The returns prepared at last settlement by Mr. Tyler exhibit 56 inhabited sites, 2,242 houses, and a total population of 14,644 souls. Increase in population since last settlement. The increase in population during this period has therefore been 46·33 per cent., against an increase of 86·84 per cent. in the number of houses.

The physical features are easily described. The surface of the country is extremely level; there are no rivers or streams, and the few jhils which exist are small in area and dry up early in the cold season. Physical features. The soil all over is very uniform, and is that rich and easily worked light loam called "piliya" which is so prevalent in the Muttra district. A few sandhills crop up here and there, but their total area is insignificant. In and round jhils the soil becomes stiffer and more argillaceous. There is little real usar, and the patches of waste which still remain unbroken are often covered with shrubby jungle and sometimes with dhak trees. Mango groves are more frequent than in the parganas further west, but the trees are neither so luxuriant nor so productive as in the plains of Jalesar.

Canal water is not available, and the area irrigated from jhils and ponds amounts to but a few acres. Wells, however, can be dug almost everywhere, and only 544 acres of the whole cultivated area are absolutely unirrigable. Sources of irrigation. Water is reached at an average depth of 39 feet from the surface, the supply is generally abundant, and the subsoil for the most part good. The wells used for irrigation purposes number 1,908 in all, of which 71 are constructed of solid masonry, and 13 of bricks or kankar without mortar. One thousand and fifty-one of the kucha wells are "garwari," and the remaining 773 "ajhar." Twenty-eight pukka and 648 kucha wells are either out of repair or are not used for irrigation. The 84 pukka wells in work have got 177 runs, and the 1,824 kucha wells 1,928 runs; 828 of the wells are "kili," that is, they admit of two yokes of bullocks working at the same run, whilst 1,080 are "naguar," at which only one pair of bullocks can work at each run. At last settlement the pukka wells then existing were returned by Mr. Tyler as 86, and the kucha as 1,763. The average areas (including actually irrigated and irrigable) commanded by the different kinds of wells per run are:—

							Acres.
Pukka	...	...	...	...	...	...	9·6
Garwari	...	...	...	...	...	...	8·8
Ajhar	...	...	...	...	...	...	7·2

The average area irrigated *per well* at last settlement is given by Mr. Tyler at 8 acres. In 1,749 wells the water is sweet and good, whilst in the remaining 159 it is either brackish, oily, or bitter.

The weed *baisuri* is met with in perceptible quantities over 2,097 acres of the cultivated area. It is principally confined to the villages in the north-east corner of the pargana bordering on Hāthras, where, to a more or less extent, it affects injuriously the productiveness of the soil. The weed *baisuri*.

The total number of ploughs is 1,659, and of plough cattle 3,321; other cattle are returned at 6,392, sheep and goats at 1,834, and horses at 341. Ploughs and cattle. The average plough area is 11·1 acres, against 11·2 acres at last settlement.

Sahpau, with a population of 4,026 souls, is the principal town in the pargana. It boasts of two bazars and a brisk local trade. In the larger Towns and markets. bazars bi-weekly markets are held, which are fairly attended by the country people and petty traders. Mahrara, Dhadau, Rasgamma, and Lodhai have all populations just over or just bordering on 1,000. Small "penths" or fairs are held in them and in several other villages scattered over the pargana, respecting which it is unnecessary to particularize further.

The pargana is specially favoured by its position for the disposal of its surplus produce. It is within easy distances of Agra, Hathras, and Aligarh; the East Indian Railway passes through it, and there is a station inside its boundary. It is also bisected by the metalled road connecting Sadabad with Jalesar, whilst the absence of rivers and streams and the dry character of the country render internal traffic on the common village roads practicable even during the height of the rains.

Horticultural products and sugarcane are rarely met with, but the best of the ordinary kharif and rabi crops occupy exceptionally large areas, as the following statement shows :—

# DISTRIBUTION OF CROPS.

KHARIF.		RABI.		GARDEN CROPS OR KACHHIYANA.										
Crops.	Area.		Percentage of whole crop area.	Crops.	Area.		Percentage of whole crop area.							
	Kharif.	Dofasli.			Crops.	Kharif.	Dofasli.							
Sugarcane ...	86	...	86	44	Wheat ...	2,237	536	2,773	19.18	Tobacco ...	8	38	46	23
Cotton ...	4,905	79	5,074	25.77	Barley ...	1,115	251	1,466	7.45	Other crops	94	22	116	59
Indian-corn ...	...	523	523	2.68	Bajhar ...	1,990	104	2,094	10.65					
Juár ...	4,134	124	4,258	21.63	Gram ...	376	11	387	1.96					
Bajra ...	474	62	536	2.73	Gojál ...	239	70	309	1.57					
Rice ...	1	...	1	...	Jau chana ...	174	7	181	.92					
Jadigo ...	96	213	409	2.08	Other crops ...	51	9	60	.31					
Hemp ...	10	18	28	.14							102	60	162	82
Khurdi ...	234	5	239	1.21										
Other crops ...	55	10	65	.33										
Total ...	10,075	1,148	11,223	57.04	Total ...	7,202	1,068	8,270	42.14	Total dofasli Area ...				1,148
										Area under arhar ...				8,003

Total crop area ... 10,075 acres.  
Add fallow. ... 4 "  
10,079

Deduct ... { Dofasli ... 1,148  
{ Muqá ... 164  
10,377

Cotton, owing to the suitability of the soil for its growth, and the vicinity of the largest mart in Northern India (Hathras) for that staple, is most extensively grown, and generally takes up between one-fourth and one-third of the whole cultivated area. Juár, next to it, is the most important kharif crop; whilst wheat almost equals in area all the other rabi crops put together. The returns from arhar, which is generally sown with cotton, but which does not ripen until long after the cotton is picked, are by no means inconsiderable. The dofasli area is about one-sixteenth of the whole area under the plough.

The cultivation in this pargana is more distinguished by its all-round goodness than by any marked superiority in particular tracts or parts. This is attributable—(1) to the agricultural character of the principal cultivating castes; (2) to the peculiar evenness in the natural capabilities of the soil, which comprises a larger percentage of really productive land than any pargana I am acquainted with; and (3) to the density of the population and to the almost universality of irrigation. Thus, although the home fields do not as a rule exhibit that wonderful luxuriance of garden cultivation and rapid succession of crops for which the gauhans of many villages in Jalesar and Mustafabad tilled by Kachhis and Lodhas are justly celebrated, still the outlying fields which form the bulk of the area are better cared for and yield more remunerative returns.

## Proprietary statistics.

Caste.	Resident.			Non-resident.			Total.		
	Number of owners.	Area owned in acres.	Average holding in acres.	Number of owners.	Area owned in acres.	Average holding in acres.	Number of owners.	Area owned in acres.	Average holding in acres.
Brahmans ...	124	4,016	32·3	55	4,072	74·0	179	8,088	45·2
Thākurs ...	98	5,093	52·0	8	88	11·0	106	5,181	50·0
Jāts ...	103	1,868	17·5	19	79	4·1	122	1,947	15·4
Baniyas ...	14	941	17·2	22	1,880	81·7	37	2,121	57·3
Ahirs ...	89	1,160	14·5	8	45	5·6	97	1,205	12·7
Mahājans ...	4	555	138·7	9	639	71·0	13	1,194	91·3
Muhammadans ...	...	...	...	2	790	395·0	2	790	395·0
Other castes ...	16	438	27·4	2	50	25·0	18	488	27·4
Total ...	439	12,371	30·4	126	7,573	60·1	565	20,944	37·1

\* Owned by these castes ... 20,344  
 Muzil ... 154  
 Owned by Government ... 160  
 21,258

Of the principal owners, therefore, the Thākurs, Jāts, and Ahirs live, with very few exceptions, on their estates; whilst the bulk of the land owned by Baniyas, Mahājans, and Muhammadans, all purchasers or mortgagees, belongs to non-residents. The Brahmans occupy a middle position, half of their property belonging to residents and half to non-residents.

## Statistics of cultivating occupancy by caste.

Caste.	Sfr.			Right of occupancy tenants.					Non-right of occupancy tenants.				
	Number.	Area.	Average.	Number.	Area.	Rent.	Average.	Rental per acre.	Number.	Area.	Rent.	Average.	Rental per acre.
Brahmans ...	128	Acres. 1,320	10·3	187	Acres. 1,662	Rs. 7,476	12·1	Rs. a. p. 4 8 0	131	Acres. 1,546	Rs. 8,652	11·8	Rs. a. p. 5 9 6
Thākurs ...	76	908	12·0	76	924	4,467	12·1	4 13 4	96	1,322	6,554	12·7	5 5 10
Jāts ...	89	906	10·2	57	541	2,599	9·5	4 12 10	102	1,162	5,475	11·4	5 9 1
Baniyas ...	9	65	7·2	36	400	1,513	11·1	3 12 6	23	297	1,348	12·9	4 8 7
Ahirs ...	87	699	8·0	59	923	3,586	15·0	3 14 2	67	861	4,420	12·8	5 2 2
Garariyas ...	...	...	...	24	385	2,001	11·9	5 3 2	47	477	2,408	10·1	5 0 9
Barhais ..	1	20	20·0	5	48	269	9·6	5 9 8	14	113	522	8·1	4 9 11
Chamārs ...	9	82	9·1	39	456	2,561	11·7	5 9 10	115	1,438	7,737	12·5	5 6 1
Kuchhis ...	...	...	...	40	247	1,233	6·2	5 3 1	12	54	348	4·5	6 7 1
Nais ...	...	...	...	3	54	249	18·0	4 9 9	4	45	198	11·2	4 6 5
Other castes...	16	112	7·1	74	563	2,763	7·9	4 11 11	60	532	2,789	8·7	5 5 6
Total ...	409	4,112	10·0	569	5,222	22,769	11·1	4 10 3	671	7,738	41,454	11·5	5 5 8

Brahmans, Thākurs, Jāts, and Ahīrs cultivate nearly the whole of the sīr area; and from the same caste, with the addition of Chamārs and Garariyas, the tenantry is almost entirely recruited. In nearly every instance the average acknowledged rates current in tenant-at-will holdings were considerably in excess of those paid by occupancy cultivators, the difference over the whole pargana being Rs. 0-11-7 per acre, or 15·64 per cent.

Occupancy statistics now and at revision of records. Comparing the occupancy statistics at revision of records in 1850-51 with similar statistics derived from the attested khatianis :—

Description.	Revision of record.				
	Number of holders.	Total area.	Rent.	Rate.	Average holding.
		Acres.	Rs.	Rs. a p.	
Sir ... ..	380	5,266	4,222	0 12 10	15·05
Privileged tenants.					
Land held by resident tenants with occupancy rights.	216	3,885	16,150	4 2 6	18·08
Land held by non-resident tenants with occupancy rights.	26	243	1,008	4 2 4	9·35
Land held by resident tenants-at-will	528	7,054	33,197	4 11 3	13·38
Ditto by non-resident tenants-at-will,	136	1,547	6,526	4 3 6	11·37
Rent-free land granted by zamindars	99	705	...	...	1·06
Cultivated gardens	...	...	...	...	...
Total ...	1,355	18,100	61,103	3 6 1	13·35

Description.	At Survey.				
	Number of holders.	Total area	Cash area.		Average holding.
			Rent.	Rate.	
		Acres.	Rs.	Rs. a p.	
Sir ... ..	409	4,112	6,499	1 9 3	10·45
Privileged tenants.					
Land held by resident tenants with occupancy rights.	334	5,573	26,515	4 12 5	11·51
Land held by non-resident tenants with occupancy rights.	76	650	2,154	3 5 0	8·55
Land held by resident tenants-at-will	531	6,404	34,678	5 6 3	12·08
Ditto by non-resident tenants-at-will,	140	1,334	6,776	5 1 3	9·53
Rent-free land granted by zamindars	100	84	11	0 2 1	·84
Cultivated gardens	...	220	356	1 10 0	...
Total ...	1,740	18,377	77,089	4 3 1	10·56

Thus the sīr area has decreased from 5,266 acres to 4,112 acres, whilst the area held by occupancy tenants has increased from 4,128 acres to 6,223 acres, the percentages of the whole tenant area in possession of this class being 32·43 and 44·57 respectively at each period. The average holdings at both periods were :—

				Revision of records.	Present time.
				Acres.	Acres.
Occupancy tenants	...	...	...	17	11
Tenants-at-will	...	...	...	18	11

and the average acknowledged rent-rates—

				Revision.	Present time.
				Rs. a. p.	Rs. a. p.
Occupancy tenants	...	...	...	4 2 6	4 10 1
Tenants-at-will	...	...	...	4 9 11	5 5 8
Both classes	...	...	...	4 7 6	5 0 6

exhibiting an increase in the admitted all-round rate of 12·59 per cent. since the revision.

This pargana was entered in the schedule referred to in the 2nd article of the treaty of Surji Anjengam as one of the mahāls in the Duāb formerly belonging to General De Boigne, and its annual

Past fiscal history.

revenue was put at Rs. 40,000. The actual receipts for the year 1799 A.D., as obtained from the kanúngo's papers, were Rs. 38,085. On the annexation, Sahpau, with other parganas, was farmed by Lord Lake to Thákur Daya Ram of Háthras, under whose authority it remained until the conclusion of the first triennial settlement in 1807-08 A.D. The actual sums annually realized from him are not known, but from one of the old records found in the tahsili it appears that the yearly jamas for which the zamíndars were responsible amounted to a total of Rs. 33,845. Daya Ram's farm ended with the first triennial settlement, and in 1808 Mr. Trant, Officiating Collector of Aligarh, accepted engagements from the village proprietors, or from farmers in case of refusal, for the second triennial settlement at progressive jamas rising from Rs. 31,131 in 1216 fasli to Rs. 41,006 in 1218 fasli. Mr. Trant reported that the zamíndars were rejoiced at being reinstated in their possessions and delivered from the exactions of Daya Ram. No regular settlement was made for the period extending from 1219 to 1222 fasli. The jamas of 1218 fasli were left undisturbed in all cases where the zamíndars continued to pay the assessments, and it was only when farms lapsed or the proprietors became recusant that fresh arrangements were made. The total demands for these four years stood as follows :—

							Rs.
1219 fasli	...	...	...	...	...	...	40,432
1220 "	...	...	...	...	...	...	39,755
1221 "	...	...	...	...	...	...	39,882
1222 "	...	...	...	...	...	...	40,028

The settlement for 1223 to 1227 fasli was concluded with the zamíndars in possession by Mr. Boulderson, who then had his headquarters at Sadabad. He assessed the pargana at Rs. 50,146, or an increase of Rs. 10,118 on the jama of 1222 fasli. This settlement was extended by various enactments until the assessments under Regulation VII. of 1822 were completed.

In 1825-26 Khushal Singh and Kesri Singh, the Ját proprietors of the eight villages named in the margin, joined the usurping Raja Durjan Sal of Bhartpur, and fought against Lord Combermere when he besieged that fortress. On its fall and the deposition of Durjan Sal these villages were confiscated for the rebellion of their owners, and let in farm at Rs. 12,824, an increase of Rs. 3,378 on the former jama. Mr. Boulderson's demand was thus increased from Rs. 50,146 to Rs. 53,524. The assessment of the pargana, excluding the villages of Bhuklara and Mahrara, previously settled by Mr. Deedes, was conducted by Mr. Tyler under the provisions of Regulation VII. of 1822. The practice of calculating and comparing average rates over parganas or large tracts of country was not then observed, but the system adopted seems to have been as follows :—The cultivated area of each mauza was divided into three artificial classes of soil, according to their proximity to or distance from the village site, and these classes were again subdivided into irrigated and unirrigated. The tahsildar,\* on whose judgment and integrity much reliance was placed by the Collector, was then employed to frame the village jamabandis by applying an appropriate rate of rent to each description of land according to its class and capabilities. The jamabandis thus prepared by the tahsildar (which are stated to be founded in all instances on the rates which would be paid by the tenants-at-will for lands of like quality and possessing like advantages) were afterwards revised by the Collector, who raised or lowered them in every case as the information which he himself possessed, based on the results of local enquiry, led him to think either expedient or necessary. The total rent-roll thus fixed by the tahsildar on the 34 villages settled by Mr. Tyler amounted to Rs. 72,979-12-6. This was considered by that officer too severe and was reduced to Rs. 67,583-1-0,\* on which estimate he based his assessment. From the gross estimated rental thus finally determined on 25 per cent. was uniformly deducted, and the jamas fixed at the remaining 75 per cent. In the eight

Mahrara.  
Tharaura.  
Bahadurpur.  
Rudayal.  
Chaubara.  
Dohal.  
Garhi Chinta.  
Nagla Khanzama.

\*Pachauri Mukand Singh.

† Or, including Mahrara and Bhuklara, a jamabandi of Rs. 74,867.

confiscated villages only 15 per cent. was allowed to the farmer, and 85 per cent. of the assets was appropriated as revenue. The Board, in reviewing Mr. Tyler's assessments, admitted that in taking a full 75 per cent. of the gross rental, adequate profits would not be secured to the proprietors; but they at the same time expressed it as their firm conviction that his estimated jamabandis erred on the side of leniency, and that on the whole a sufficient margin had been left to the zamindars. His assessment, which stood at Rs. 57,214, or an increase of Rs. 3,690 on that of the preceding year, was accordingly sanctioned. The incidence of his jama on the 34 villages settled by him was Rs. 3-6-2 per cultivated acre, and Rs. 64-11-3 per head on the proprietary body; whilst the all-round rent-rate deduced from the new jamabandis amounted to Rs. 4-6-9 per acre under crops. The jama of the last year of the expired settlement was Rs. 57,115, or Rs. 99 less than it was then.

The difference arises as follows :—

Additions.		Deductions.	
	Rs.		Rs.
Resumption of revenue-free plots ...	156.	Remission for land taken up for road...	12
		Remission for land taken up for East Indian Railway	243
			255

The following details, prepared from the village records, exhibit but too clearly the frightful extent to which the hereditary zamindars have been supplanted since they were first admitted to engagement at the second triennial settlement. Some of the transfers occurred prior to last settlement, but the majority of the alienations belong to the period of 25 years intervening between 1833 and the mutiny. The eight villages confiscated for rebellion during the Bhartpur war are included in this statement, and the zamindars subsequently engaged with are entered as hereditary. This is justifiable, as these men were the original owners of the soil, and were replaced early in the century by Khushal Singh and Kesri Singh, Jats, who, under the protection of Daya Ram, became malguzars.

*Area transferred from the men with whom the second triennial settlement was made shown under the head of the transfer to which it was last subject.*

Private sale.	Auction in execution of decree.	Auction for arrears of revenue.	Mortgage.
Acres.	Acres.	Acres.	Acres.
8,467	2,187	735	2,090

*Area transferred from the men with whom the last settlement was concluded shown under the head of the transfer to which it was last subject.*

Private sale.	Auction in execution of decree.	Auction for arrears of revenue.	Mortgage.
Acres.	Acres.	Acres.	Acres.
8,294	2,186	735	1,680

Our revenue system has, therefore, effected an almost entire change in the character of the proprietary classes since Mr. Trant's settlement in 1808. The result has been the replacement of the hereditary yeomen, released from Dya Ram's power by Mr. Trant, by a body of grasping traders and speculators who are not connected with the soil by any ancient traditions, and who look upon the land merely as a good investment for their capital. The causes which have brought about this state of things are various, but to the high incidence of Mr. Tyler's assessment, and to the small margin of profit left to the zamindars for the first fifteen or sixteen years of his settlement, must, in a great degree, be attributed many of the alienations which have taken

The prices which have been realized by private sale, civil court sale, and mortgage sale during the three periods distinctly marked off from each other by the revision of records and the mutiny are subjoined:—

	Kind of transfer.	Area alienated.	Price paid.	Revenue of share alienated.	Average price per acre.	Amount of purchase money per rupee of revenue.
		Acres.	Rs.	Rs.	Rs.	Rs.
1st period ...	Private sale ...	1,282	10,849	4,079	8 46	2 66
	Civil court sale ...	2,508	8,520	7,846	3 4	1 08
	Mortgage ...	47 9	22,038	14,129	4 67	1 56
	Total ...	8,519	41,416	26,054	4 86	1 59
2nd period ...	Private sale ...	2,606	31,577	8,295	13 26	4 16
	Civil court sale ...	769	5,088	2,606	6 61	1 95
	Mortgage ...	2,144	19,085	6,552	8 9	2 91
	Total ...	5,519	55,750	17,453	10 64	3 36
3rd period ...	Private sale ...	4,252	74,029	13,018	17 41	5 68
	Civil court sale ...	1,022	13,534	3,561	13 24	3 8
	Mortgage ...	1,638	38,855	5,221	20 66	6 43
	Total ...	6,912	1,26,418	21,800	17 66	5 57
Grand Total ...		20,940	2,21,581	65,307	10 58	3 39

Notwithstanding the undoubted severity of the assessment during the first period, in the money market the land of this pargana has a higher value than that of most parts of the North-Western Provinces, whilst the prices fetched since the mutiny prove both that the demand has been great and the competition keen.

Comparison of past and present areas.

Period.	Total area.	NOT ASSESSABLE.					ASSESSABLE.						
		Muñi.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Out of cultivation.		Cultivated.			
								Culturable waste.	Fallow.	Irrigated.		Total cultivated.	Total assessable.
	Acres									Wells.	Dry.		
Last settlement	...	371	355	33	1,209	1,968	81	1, 50	204	4, 822	2,677	17,500	19,035
Revision of records	...	195	263	182	1,340	1,985	101	749	7	13,195	4,910	18,105	18,957
This settlement	...	154	338	135	1,210	1,746	223	689	43	17,823	544	1, 377	19,512

The difference between the total areas by past and present survey is only 255 acres, or a trifle over one per cent. The revenue-free area has decreased from 371 to 154 acres on account of resumptions which have been made since last settlement. The areas occupied by village sites and water have remained nearly stationary, and the barren waste of last settlement only differs by 10 acres from that of the present returns. The area under groves has more than doubled itself within the last 40 years, whilst the culturable waste, including fallow land, has fallen from 1,454 to 912 acres.



Cultivation has risen from 17,500 to 18,377 acres, or 5 per cent. This increase is due chiefly to the actual redemption of waste, as the 217 acres of muafi land brought on the revenue-roll is counter-balanced by the additional 142 acres exempted under the head of groves.

The barren waste has been very carefully marked off and recorded at this settlement, and the remarkable coincidence between the present and past areas of such waste proves that at last settlement also great pains were taken to ensure correct returns. The 912 acres of culturable waste and fallow leave very little room for extension of cultivation, and irrigation as it now stands cannot be much improved on.

The increase in the irrigated area within the last forty years has been 3,010 acres, or 20·3 per cent.

The selected area on which the inductions were based amounted to 4,790 acres, or 60 per cent. of the area occupied by all classes of tenants in 25 of the 36 villages under report. The actual rental on these 4,790 acres is Rs. 30,253, and the estimated rental at average rates Rs. 30,436. The rates, therefore, which have been assumed for assessment are those which for some years past have really governed rent transactions over 4,790 acres, or 34·3 per cent. of the whole tenant area. These 4,790 acres have been taken from all parts of the pargana; they contain all descriptions of soil, and are held by all classes of tenants: hence it may fairly be assumed that they are applicable to the remainder of the area.

The soil areas multiplied by the rates give the following results :—

	Acres.	Rate.		Rs.	a.
		Rs.	a.		
Gauhan I. ... ..	596	12	0	7,152	0
Ditto II. ... ..	363	10	0	3,630	0
Manjha I. ... ..	847	9	0	7,623	0
Ditto II. ... ..	1,062	7	0	7,434	0
Home tarai ... ..	63	8	0	504	0
Irrigated barha I, good ... ..	5,562	7	4	40,324	8
Ditto fair ... ..	4,129	8	2	33,990	2
Ditto II, good ... ..	2,579	5	8	14,184	8
Ditto average ... ..	1,603	5	2	8,215	6
Dry barha I, good ... ..	105	5	0	525	0
Ditto fair ... ..	43	4	0	172	0
Ditto II, good ... ..	44	3	8	154	0
Ditto average ... ..	179	3	2	559	6
Irrigated puth ... ..	77	3	0	231	0
Dry do puth... ..	70	2	0	140	0
Irrigated barha tarai ... ..	953	6	0	5,718	0
Dry ditto ... ..	103	4	8	463	8
Total ... ..	18,377			1,23,373	6

or an all-round rate of Rs. 6-11-5 per acre.

My rates were sanctioned by the Board of Revenue in their letter No. 240N., dated 14th May, 1875, to the address of the Commissioner of the Agra division. The declared assessments were Rs 60,990, and these assessments remained unchanged on appeal, but on revision of the statements by the Board of Revenue a decrease of Rs. 90 was allowed.

The assessment has been provisionally sanctioned by G. O. No. 1387A., dated 22nd May, 1878.

The assessment shows but little enhancement, the total increase being only Rs. 3,785, or 6·6 per cent. on the expiring demand; but a greater rise in the revenue could scarcely be anticipated from a tract of country which was far from lightly burdened at last settlement, and in which the increase in the cultivated area has been trifling.

The pátwari's papers show that the admitted assets remained almost stationary from the mutiny to this settlement, the difference between the first and the last year being only Rs. 2,691. Again, the rental of the mutiny year only exceeded that of 1833 (Rs. 74,867) by Rs. 3,459. These figures give results contrary to all expectation. The pargana is now owned for the most part by new zamíndars, generally traders or speculators, who are little inclined to treat their tenants with consideration much less with leniency, and it is absurd to suppose that during a period of unparalleled prosperity and great rise in the prices of agricultural products no adequate and corresponding advance in the zamíndar's income has taken place. Concealment of assets was practised to a very great extent in this pargana, the zamíndars being fully alive to the supposed advantage of filing false returns in anticipation of settlement, and in 11 out of 36 villages the recorded rents were excluded from the investigation into rates.

The rough records showed an interpreted rental of Rs. 93,866, or an all-round rate of Rs. 5·1. The following statement shows the rents after Rentals before and after enhancement. rate of Rs. 5·1. The following statement shows the rents after completion of the enhancements in the settlement courts :—

Description.	Area.	Rent.	Rate.
	Acrea.	Rs.	Rs. a. p.
Sir ... ..	3,547	6,286	...
Ex-proprietary tenants ... ..	21	150	7 2 3
Resident tenants with occupancy right ... ..	6,047	36,573	5 8 10
Non-resident tenants with occupancy right ... ..	762	3,535	4 10 2
Resident tenants-at-will ... ..	6,360	36,936	5 12 11
Non-resident tenants-at-will ... ..	1,413	7,937	5 3 1
Rent free-land granted by zamíndars ... ..	47	...	...
Cultivated gardens, &c. ... ..	242	399	...
Total ... ..	18,479	86,216	...

This gives an interpreted rental of Rs. 1,02,502, or an all-round rate of Rs. 5·55. Siwai items add between Rs. 2,000 and Rs. 3,000 more to the income of the zamíndars, and allowing for the undoubted concealment of assets, the rental of the pargana is now not far from double the declared revenue.

M. A. McCONAGHEY.

## Pargana Sahpau, Tahsil Sadabad.

STATISTICS OF AREA.																								
Number.	Village.	NOT ASSESSABLE.										ASSESSABLE.										21	22	23
		Total area in acres.	Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Culturable land uncultivated.			Cultivated.			Total assessable.										
								Groves.	Old waste.	Lately thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
		Ra.	Ra.	Ra.	Ra.	Ra.	Ra.														Ra.	a. p.	Ra. a. p.	
1	Baghpur	451	451	500	625	625	187	1	2	1	3	7	...	1	...	179	...	179	180	180	3 5 1	3 7 1	3 7 5	
2	Bahadurpur Deokaran	651	651	707	1,155	1,250	414	1	5	2	12	20	10	24	...	360	...	360	394	394	3 0 3	3 2 9	3 7 6	
3	Baoli	1,601	1,122	1,122	1,289	1,300	484	4	5	4	29	42	6	13	...	452	...	423	432	432	2 10 11	2 15 1	3 1 2	
4	Bukhlara	Included in Chanaupura.	...	1,000	1,261	1,330	533	1	6	3	80	92	4	40	...	380	17	397	441	441	2 7 11	3 0 3	3 5 7	
5	Burhayach	751	751	901	943	950	296	3	5	1	8	17	4	4	...	244	27	271	279	279	3 3 4	3 6 6	3 8 1	
6	Burj Nauji	601	601	625	565	500	137	1	2	1	1	5	...	2	...	130	...	130	132	132	3 10 4	3 12 7	3 13 6	
7	Chanaupura	1,575	1,701	750	703	800	259	...	4	1	58	61	1	3	...	194	...	194	198	198	3 1 5	4 0 8	4 1 11	
8	Chaubara	601	601	711	980	1,200	485	...	5	5	12	22	3	3	...	456	...	457	453	453	2 7 7	2 9 6	2 10 0	
9	Danbin	1,901	1,901	2,167	2,872	2,940	924	2	6	4	85	97	3	31	...	749	42	791	827	827	2 2 11	3 8 10	3 11 5	
10	Dhadhan	3,001	3,301	4,200	5,200	5,350	1,887	4	15	17	57	93	18	68	...	1,638	65	1,705	1,794	1,794	2 13 4	2 15 8	3 2 1	
11	Dhakpura	401	401	800	750	750	315	3	3	3	13	21	3	8	...	29	4	283	294	294	2 15 3	3 2 7	3 4 6	
12	Garhi Chinta	821	821	914	1,200	1,240	438	5	3	...	10	18	...	18	...	194	2	410	420	420	2 13 3	2 15 3	3 1 7	
13	Ditto Rustam	501	501	501	461	500	263	...	3	...	2	18	3	70	...	155	...	165	241	241	1 14 5	2 1 2	3 0 6	
14	Isaunda	1,101	1,101	2,200	2,072	2,200	841	9	11	16	77	112	1	33	...	633	52	685	729	729	2 9 10	3 0 3	3 3 4	
15	Khetiya	276	276	325	317	330	149	1	2	1	17	21	...	25	...	96	6	102	128	128	2 2 4	2 8 0	3 2 2	
16	Kokna Kalan	1,251	1,251	1,700	1,975	2,000	670	6	7	2	30	45	4	2	...	600	...	600	625	625	2 15 9	3 3 2	3 5 4	
17	Ditto Khurd	861	861	1,125	1,078	1,040	382	14	4	2	18	38	2	36	...	808	...	806	844	844	2 11 6	3 0 4	3 5 6	
18	Kukargawan	1,995	1,995	1,950	1,900	1,900	557	...	8	1	8	17	2	6	...	533	...	533	540	540	3 6 6	3 8 3	3 9 0	
19	Lodhal	1,601	1,601	2,000	2,000	2,500	944	...	7	7	11	22	24	101	...	714	77	79	922	922	2 10 4	2 11 4	3 2 7	
20	Mahrara	3,001	3,001	2,710	3,935	4,200	1,545	23	16	8	88	135	44	53	...	1,293	10	1,303	1,410	1,410	2 11 5	2 15 7	3 3 7	
21	Makanpur	901	901	1,150	1,250	1,350	535	2	4	2	110	118	3	3	...	388	23	411	417	417	2 8 4	3 3 9	3 4 6	
22	Manikpur	651	651	800	737	550	352	4	4	...	62	73	1	24	...	285	2	287	312	312	2 3 8	2 11 7	3 15 4	

## Pargana Sahpau, Tahsil Sadabad—(concluded).

STATISTICS OF AREA.																								
Number.	Village	NOT ASSESSABLE.										ASSESSABLE.												
		Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Average of last five years.	Present revenue.	Total area in acres.	Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable and uncultivated.				Cultivated.				Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and unculturable) per acre.	Incidence of present revenue on total cultivated area per acre.
														Old waste.	Late thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.	Total assessable.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
28																								
28	Nagla Bihari	621	621	925	957	909	240	2	2	...	7	11	...	2	...	229	...	229	231	3 11 6	3 14 4	3 14 10		
29	Do. Khansaman	535	535	535	635	550	170	...	1	...	2	3	...	3	...	159	...	162	167	3 3 9	3 4 8	3 6 4		
30	Do. Mauji	601	601	800	723	760	297	1	1	...	1	6	...	1	...	195	...	195	196	3 9 11	3 13 2	3 13 6		
31	Do. Salem	851	851	1,000	1,080	1,350	452	3	4	3	61	71	...	5	...	345	30	335	341	2 15 9	2 18 8	2 19 7		
32	Rampur	551	551	800	800	940	181	...	5	1	20	27	...	10	...	...	...	335	254	3 6 6	3 11 3	3 11 10		
33	Rasgawan	2,661	2,661	3,500	4,000	3,500	1,333	5	9	28	72	114	...	23	...	1,174	80	1,204	1,229	3 14 5	3 22 9	3 38 9		
34	Kudayal	425	425	450	501	501	178	...	1	...	1	12	...	13	...	132	...	152	165	3 12 11	3 20 5	3 47 7		
35	Sahpau	5,001	5,151	6,100	6,56	7,400	2,303	52	51	9	62	194	53	13	1	2,027	105	2,132	2,199	3 1 5	3 5 10	3 7 6		
36	Sahpaur Chandwara	761	751	1,100	1,143	1,400	543	1	7	2	24	34	3	56	...	496	25	461	510	2 9 2	2 11 11	2 18 8		
37	Sidariya	1,351	1,351	1,575	1,761	1,800	543	...	6	3	29	38	1	30	...	474	1	475	507	2 6 0	2 10 0	2 13 1		
38	Sultapur	651	651	950	1,100	1,100	535	...	3	1	42	47	...	58	...	43	17	430	488	2 0 10	2 4 0	2 8 11		
39	Tharaura	1,361	1,361	2,000	2,140	2,140	65	1	9	2	17	29	...	6	...	...	...	572	586	3 7 8	3 10 5	3 11 10		
40	Udhaisa	1,201	1,201	1,551	1,551	2,000	744	1	6	5	33	45	4	56	...	677	...	677	739	2 8 0	2 11 3	2 15 3		
41	Zaripura	761	761	800	890	900	342	1	3	1	9	14	...	12	...	313	...	313	328	2 10 1	2 11 10	2 14 0		
	Total	41,006	41,103	49,947	57,089	60,900	21,258	154	238	135	1,319	1,746	238	869	43	7,833	544	18,377	19,512	2 13 10	2 1 11	2 5 0		

## PARGANA SADABAD.

**History**—Changes in constitution since last settlement—Area and population—Boundaries and physical features—Sources of irrigation—Ploughs and cattle—Communications—Principal towns and villages—Distribution of crops—Character of the cultivation—Proprietary statistics—Statistics of cultivating occupancy by caste—Occupancy statistics now and at revision of records—Fiscal history—Transfers—Prices realized on transfer—Comparison of past and present areas—Soil rates—Estimated rental based on rates—Assessment—Financial result—Rentals before and after enhancement—General statement.

THIS pargana and that of Sahpau, already reported on, make up between them the present tahsil of Sadabad. It is true that they are not now regarded as two distinct fiscal subdivisions, but, for convenience sake, I determined to treat them separately. About 1652 A.D., 200 villages were withdrawn from Jalesar by order of Sadulla Khan, Wazir of the Emperor Sháhjahán, and, with the addition of 80 villages taken from Mahában and 7 from Khandauli, were formed into a new pargana, in the centre of which a town was built and called Sadabad, after its founder the Wazir. The district of Aligarh was constituted in 1804, shortly after the annexation of the conquered provinces, and Sadabad became one of the numerous parganas which composed it. In 1815 the sub-collectorate of Sadabad was formed, and Mr. Boulderson was placed in charge by the Board of Commissioners. The town of Sadabad was fixed on as his headquarters, but he and his successors in office continued to act in subordination to the Collector of Aligarh until 1824, when Sadabad became an independent district. In 1832 the headquarters of the district were transferred from Sadabad to Muttra.

At last settlement the pargana under report contained 95 villages or mauzas. Since then the villages of Baltikari and Nagla Birbal have been transferred to Mahában, Koka and Birnagarpur to Háthras, and Parbatpur to Itimádpur (formerly Khandauli); whilst in exchange Rasmai has been received from Mahában, Rashidpur from Háthras, and Sista from Itimádpur. Five villages have therefore been lost and three gained. Kunjalpur, a hamlet of Nangaon, has been separated from it, thus bringing up the present number of villages to 94.

The pargana, as now constituted, contains 329 inhabited sites. The total area is 93,950 acres, of which 81,666 acres, or 86·92 per cent., are under cultivation.\* The average village area is 999·17 acres, and the average area to each inhabited site is 285·54 acres. The population by the census of 1872 was 86,967, being 592 to each square mile of area and 681 to each square mile of cultivation; of these 41,859 inhabitants are returned as agriculturists and 45,108 as non-agriculturists. The total number of houses is 16,709, averaging five individuals to each house. I subjoin a statement showing the numerical strength of each caste represented in the pargana:—

Játs	...	...	24,132	Kahárs	...	...	987
Chamárs	...	...	14,438	Kayaths	...	...	785
Brahmans	...	...	12,704	Khatiks	...	...	727
Rájputs	...	...	4,190	Parzís	...	...	653
Baniyas	...	...	2,829	Dhunas	...	...	637
Barhais	...	...	2,352	Bairágís	...	...	579
Kolis	...	...	2,295	Kurmís	...	...	528
Náis	...	...	2,031	Sunárs	...	...	523
Garariyas	...	...	1,993	Ahírs	...	...	100
Bhangís	...	...	1,492	Other castes	...	...	2,496
Kumbárs	...	...	1,306	Musalman	...	...	6,775
Dhobís	...	...	1,306				
Kachhís	...	...	1,109				86,967

The small pargana of Sahpau, which lies between Sadabad and Jalesar, is a common ground on which the great agricultural castes of Thákurs, Ahírs, and Játs meet in nearly equal numbers; but while in Jalesar, on one side, the Játs are almost unrepresented

\* Colonel Anderson's area for Sadabad and Sahpau deduced from measurements in block is 115,378 acres, or 180·28 square miles, which differs from the measurements here given by 170 acres, due to the area of the Jumna bed and the different methods of calculation.

mented, in Sadabad, on the other, they occupy the most prominent position of all, to the almost entire exclusion of the Thákurs and Ahírs. Lodhas, who numbered 8,676 in Jalesar, only muster 122 in Sadabad, whilst Kachhís, though not to such an extent, exhibit a similar falling off. The Brahmans more than hold their own in Sadabad, and the different castes from which common labourers and village servants are drawn are found in much the same proportions in all three parganas. In Sadabad, therefore, the Játas take the place held in Jalesar by Thákurs, Ahírs, Lodhas, and Kachhís, whilst all the other castes remain much the same.

Sadabad is bounded on the north by parganas Háthras and Mursan; on the west and south-west by pargana Mahában; on the south by pargana Itimádpur, and on the east by parganas Sahpau and Jalesar. It touches on the Jumna at its south-western corner, where two of its villages, Marhauhi and Mandaur, partake of the raviny character of the country bordering on that river. The Jhirna or Kharon, a stream which dries up shortly after the cessation of the rains, traverses the pargana in a south-east direction, passing under the town of Sadabad. The valley of this stream is of considerable depth and breadth owing to the rapidity of the current and the large volume of water which passes down it during the monsoon months. The centre of this valley is occupied by the deep but narrow bed of the stream, whilst on both sides of the bed alluvial belts of cultivated land producing spring crops generally occur. This alluvial tract is connected with the level uplands above by a sloping down intersected by a few small ravines. These slopes, on account of the denuded character of the soil, are either used as pasture land or occasionally sown with the worst description of kharíf crops. Excepting the Jhirna valley and the small area of Jumna ravines and khádar land, the pargana is exceptionally level and uniform. There are no streams of the slightest importance, jhíls and marshes are very rare, and úsar plains are unknown. Nearly the whole of the area is under cultivation, and the small patches of waste which still remain are generally arable. The prevailing soil is that light and easily worked loam called "piliya," interspersed with tracts of bhúr or sand, which however bear but a small proportion to whole area. This piliya soil is just as good as dúmat for the majority of the crops ordinarily grown, and is specially adapted for cotton, which is produced in greater quantities here and in the neighbouring pargana of Sahpau than in any other tract of country with which I am acquainted.

As in Sahpau, there is no canal-irrigation, whilst the area irrigated from rivers, jhíls, and ponds is also very insignificant, amounting only to 22 acres in all.

The area commanded by wells is exceptionally large, reaching the high proportion of 88 per cent. of the total cultivation. During the year in which the field statistics were prepared there were 10,942 wells in working order, classified as follows:—

						Number.	Runs.	Average area habitually irrigated per lao or run.
								Acres.
Pucka	...	...	...	...	...	178	432	6.5
Garwari	...	...	...	...	...	2,770	3,250	6.1
Ajhar	...	...	...	...	...	7,878	8,497	...
Nanga	...	...	...	...	...	116	141	...

The quality of the water is returned as sweet in 5,809 wells and as more or less brackish or oily in the remainder. The depth to the surface of the water increases as the Jumna ravines are approached; the average throughout the pargana is 43 feet. The weed baisuri is met with in perceptible quantities over 14,452 acres of the cultivated area. This is consonant with the brackish character of the water in such a large portion of the wells. This brackishness, taken in conjunction with the more than ordinary depth to water, accounts sufficiently for the scarcity of cane throughout the pargana.

The total number of ploughs is 6,352, and of plough cattle 13,072; other cattle are returned at 26,887, sheep and goats at 8,137, and horses at 1,475. The average plough area is close on 13 acres.

The means of communication for internal as well as external traffic cannot be much improved on; the pargana is thoroughly opened up by two first class metalled roads which cross each other at Sadabad, and by means of which every village is brought within easy reach of the towns of Agra, Muttra, Hâthras, and Aligarh, and of the Manikpur station on the East Indian Railway. Any person who wishes can thus dispose of his surplus produce at the best market by undertaking a short day's journey on a good road. It is, however, exceedingly unfortunate that the metalled road from Sadabad to Muttra has for some years remained unrepaired.

There are no large towns, nor are there any places of more than local importance as centres of trade. This, however, matters little under the circumstances just mentioned. The chief towns and villages with their populations, excluding outlying hamlets, are—Sadabad, 4,019; Kursanda, 3,974; Marhaka, 2,135.

#### Distribution of crops.

KHARIF.				RABI.				GARDEN CROPS OR KACHHIYANA.							
Crop.	Area.			Percentage of whole crop area.	Crop.	Area.			Percentage of whole crop area.	Crop.	Area.			Percentage of whole crop area.	
	Ekfasi.	Dofasi.	Total.			Ekfasi.	Dofasi.	Total.			Ekfasi.	Dofasi.	Total.		
Sugarcane	432	2	434	51	Wheat ...	12,610	1,415	14,025	16.35	Tobacco,	31	78	109	0.13	
Cotton	20,754	440	21,194	24.70	Barley ...	4,687	1,536	6,223	7.25	Other	567	77	644	0.74	
Indian-corn	3	1,031	1,034	1.20	Bejhar	9,295	28	9,583	11.17	crops.					
Juâr ...	17,763	887	18,650	21.74	Gram ...	1,313	45	1,358	1.59						
Bâjra ...	3,472	159	3,631	4.23	Gojâl ...	1,775	318	2,093	2.43						
Indigo ...	395	870	1,265	1.47	Opium ...	6	2	8	0.01						
Hemp ...	48	158	206	0.24	Jau chana	1,854	58	1,912	2.23						
Khurti ...	1,663	94	1,757	2.04	Other crops	947	44	991	1.16						
Other crops,	465	220	685	0.82											
Total ...	44,995	3,861	48,856	56.94	Total ...	32,487	3,706	36,193	42.19	Total...	598	155	753	0.87	
												Area under arhar ... 33,474			

				Aeres.
Total crop area	...	...	...	85,802
Add fallow	...	...	...	130
				Total
				85,932
Deduct	{ Dofasi	...	...	3,861
	{ Muâfâ	...	...	405
				81,666

The distinguishing peculiarity in the character of the cultivation of this pargana is its all-round excellence as distinguished from any very marked superiority in certain tracts and hars. This is accounted for by the caste of the cultivators—Jâts having taken the place of the Kachhîs and Lodhas as well as of the Ahîrs and Râjpûts of Jalesar. Unlike the Kachhîs and Lodhas, they have no special taste for horticulture in the home lands or for any particular crop, such as cane, but prefer to grow the ordinary staples, and to bestow equal care on all their cultivation. On the other hand they differ as widely from the Thâkûrs and Ahîrs, who are generally careless cultivators, and who have to return to their homes for their midday meals. The home lands in Sadabad are, therefore, very uniform, and differ only from the hars by being more highly manured and by producing double

crops, whilst the hars compared with those occupied by the castes above mentioned are relatively more valuable.

Proprietary statistics.

Caste.	RESIDENT.			NON-RESIDENT.			TOTAL.		
	No. of owners.	Area owned in acres.	Average holding in acres.	No. of owners.	Area owned in acres.	Average holding in acres.	No. of owners.	Area owned in acres.	Average holding in acres.
Brahmans	499	8,156	16.3	193	7,498	38.9	692	15,654	22.6
Thákurs	464	7,580	16.3	65	1,563	24.0	529	9,143	17.3
Játs	2,627	28,490	10.8	323	5,090	15.7	2,950	33,580	11.4
Baniyas	39	676	17.3	213	13,075	61.3	252	13,751	54.6
Mahájans	1	146	146.0	16	340	21.2	17	486	28.6
Dhúsars	...	...	...	16	3,464	230.9	16	3,464	230.9
Keyats	34	2,416	71.0	21	509	24.2	55	2,925	53.2
Muhammádans	13	544	41.9	30	11,687	389.6	43	12,231	284.4
Other castes	20	146	7.3	24	1,890	79.0	44	2,036	46.2
Total	3,697	48,154	13.0	900	45,116	50.1	4,597	93,270	20.3

	Acres.
* Owned by these castes, ...	93,270
Muáfi " ...	484
Owned by Government, ...	196
	93,950

The subdivision of property is, therefore, considerably more than in Jalesar or Sahpau. The principal proprietary castes ranked according to the extent of their possession are—

Játs.  
Brahmans.  
Baniyas.

Musalmans.  
Thákurs.  
Dhúsars.

The Játs and Thákurs live for the most part on their estates, generally hereditary; whilst the Baniyas, Musalmans, and Dhúsars, who have replaced the original zamíndars, are nearly all non-resident. The Brahmans, as in Sahpau, hold an intermediate position between the two extremes.

Statistics of cultivating occupancy by caste.

Caste.	Str.			Right of occupancy tenants.					Non-right of occupancy tenants.				
	Number.	Area.	Average.	Number.	Area.	Rent.	Average.	Rental per acre.	Number.	Area.	Rent.	Average.	Rental per acre.
		Acres.			Acres	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.
Brahmans	379	2,669	7.0	569	4,584	22,888	8.0	4 15 11	752	7,370	41,270	9.8	5 9 7
Thákurs	196	2,447	12.3	158	1,831	8,332	11.7	4 8 9	389	4,034	20,900	11.9	5 2 11
Játs	1,818	15,694	8.6	1,272	10,609	54,260	8.3	5 1 10	1,644	15,430	87,734	9.3	5 10 11
Baniyas	48	287	6.0	19	172	683	9.0	3 15 6	49	410	2,383	8.4	5 12 11
Ahírs	...	...	...	7	151	759	21.5	5 0 5	15	152	685	10.1	4 2 1
Garariyas	...	...	...	26	276	1,369	10.6	4 15 4	101	1,092	5,706	10.9	5 3 2
Barhais	1	5	5.0	36	270	1,274	7.5	4 11 6	97	583	3,494	6.0	5 15 10
Chamárs	...	...	...	165	1,580	8,377	9.6	5 4 10	427	4,014	21,611	9.4	5 6 1
Kachhis	1	6	6.0	21	73	653	3.5	8 15 1	52	328	2,398	6.3	7 4 10
Náís	1	2	2.0	7	6	22	7.8	3 10 8	52	165	1,112	3.6	6 0 2
Kabárs	...	...	...	13	66	452	5.1	6 13 6	30	203	1,280	10.1	6 4 11
Musalmans	13	125	9.6	42	527	3,047	12.5	6 12 6	83	793	4,447	9.6	5 9 9
Other castes	46	332	7.2	139	1,176	4,696	8.4	3 15 10	381	2,835	14,929	7.4	5 4 3
Total	2,595	21,567	8.6	2,474	21,321	1,06,812	8.6	5 0 1	4,012	37,436	2,07,949	9.3	5 8 10



The Jâts occupy 73 per cent. of the whole sir area. Of the remaining 27 per cent. Brahmans hold 12 and Thákurs 11 per cent., thus leaving only 4 per cent. for all the other castes combined. The same three castes monopolize between them 80 per cent. of the land cultivated by occupancy tenants and 71 per cent. of that held by tenants-at-will—Jâts still having the lion's share. The only other caste of any importance is that of the Chamárs. Over the whole pargana the rate paid by tenants-at-will is Re. 0-8-9, or 11 per cent. higher than the rate paid by occupancy tenants, although the latter cultivate land of a better quality all round. The sir area bears the large proportion of over quarter of the whole cultivation.

Occupancy statistics now. Comparing the cultivating statistics at revision of records and at revision of records. with similar statistics now prepared, we have—

Description.	REVISION.					AT SURVEY.				
	Number of holders.	Total area.	Rent.	Rate.	Average holding.	Number of holders.	Total area.	Rent.	Rate.	Average holding.
		Acres.	Rs.	Rs. a. p.			Acres.	Rs.	Rs. a. p.	
Sir ...	2,927	26,723	11,450	0 6 10	9'16	2,305	21,567	21,370	1 7 3	8'62
Privileged tenants ...	...	...	...	...	...	...	...	...	...	...
Land held by resident tenants with occupancy rights.	447	6,302	27,445	4 5 8	14'10	2,017	18,017	91,240	5 1 0	8'92
Land held by non-resident tenants with occupancy rights.	97	807	2,968	3 10 10	8'32	457	3,304	15,572	4 11 5	7'22
Land held by resident tenants-at-will.	3,004	26,042	1,58,446	4 5 11	12'00	3,141	29,754	1,67,417	5 10 0	9'47
Land held by non-resident tenants-at-will.	754	7,377	22,385	3 15 2	9'78	871	7,681	40,532	5 4 6	8'82
Rent-free land granted by zamindars.	415	506	...	...	1'22	641	665	1	...	1'01
Cultivated gardens, &c.,	...	...	...	...	...	23	678	258	...	...
Total ...	7,644	77,828	2,29,694	2 15 4	10'18	9,655	81,666	3,46,390	4 3 10	8'45

The sir as elsewhere has decreased, whilst the land in the possession of occupancy tenants has trebled in area since revision of records. There has been an increase of 43·31 per cent. in the all-round rent-rate since the revision.

Immediately after the conquest this pargana was farmed for 1211 fasli by Mr. Cunyngham, Collector of Etáwah (under whose jurisdiction it then was), to Puran Chand, a banker of Mahában. In the succeeding year the farm was transferred to Thákur Bhagwant Singh of Mursan, under whose management it remained until the end of the first triennial settlement in 1215 fasli. The second triennial settlement (1216 to 1218 fasli) was completed towards the close of 1808 by Mr. Trant, Collector of Aligarh, who concluded it with the village zamindars, allowing them 10 per cent. as proprietary profits and 5 per cent. for expenses of collection. Notwithstanding the depressed condition of the pargana, arising partly from Bhagwant Singh's exactions, and partly from the severe droughts of 1806-07 and 1807-08, Mr. Trant fixed the standard jama for 1218 fasli at Rs. 2,36,533\* a sum of Rs. 6,861 in excess of the revenue lately collected. It was therefore a matter of little surprise when we find that many of the zamindars—although "they expressed their satisfaction at being emancipated from Bhagwant Singh's power"—refused to accept the management of their villages on the terms offered. Other causes in addition to the undue severity of Mr. Trant's settlement operated in bringing about its failure. Inequalities in individual assessments and an imperfect record of rights were the natural consequences of the great rapidity with

\* Rs. 2,30,042 on the pargana as then constituted, Rs. 2,36,533 on the villages which now compose it.

which the settlement was completed; whilst the change in the management from a wealthy capitalist to indigent and thriftless zamindars rendered the collection of the revenue a work of insuperable difficulty. Heavy balances accrued, sales and farms for arrears became frequent, and the zamindars soon began to look upon their newly-acquired privileges as of little or no value. Almost half the pargana was thrown on the hands of Government, and a resettlement of many of the villages before the expiration of the four years' leases became absolutely necessary. This was conducted by Mr. Trant's successor, Mr. Newnham, who allowed considerable reductions. Sadabad has the unenviable notoriety of being the first pargana in which a public sale for arrears of revenue took place. Kajrauti was the village. Its jama was Rs. 8,144, and the balances for 1216 and 1217 fasli amounted to Rs. 9,927-1-4. It was put up to auction on the 5th June, 1810, and no purchasers appearing, it was bought in by Government for one rupee. The jama of the third settlement (1219 to 1222 fasli) was Rs. 2,25,536, or Rs. 10,997 less than that of 1218 fasli, but cases of recusancy still continued to be common, and it was no easy matter to collect the revenue from the zamindars. From Mr. Boulderson's deputation to Sadabad in 1815 a new era in the history of the pargana commences. It is true that he did not lower the revenue demand, but by a judicious distribution of it over the different villages, by vigorous administration, and by paying constant attention to the wants of the people, he was able to ensure the successful working of his settlement. This settlement was extended by various enactments until the completion of the Regulation VII. of 1822 settlement by Messrs. Deedes and Tyler in 1833-34. Some changes in the total demand took place, however, in the interim, resulting from the resumption of muafi patches and the lapsing of a few farming leases. The increase taken by these officers in 1834 was very slight, Rs. 8,328 in all. To recapitulate, the jamas of the different settlements stood as follows:—

Settlement.	Period.	From whom engagement taken.	Jama.
First year after the conquest	1211 fasli	Puran Chaud, farmer	Rs. Not ascertainable.
Second ditto ditto	1212 "	Bhagwant Singh, farmer	Ditto.
First triennial settlement	1213 to 1215 "	Ditto	1,35,710
Second ditto ditto	1216 to 1218 "	The village zamindars and from petty farmers in case of refusal of the zamindars to engage.	2,36,533
Quartennial settlement	1219 to 1222 "	Ditto	2,25,536
Quinquennial ditto	1223 to 1227 "	Ditto	2,23,173
Extension of quinquennial settlement for five years.	1228 to 1232 "	Ditto	2,23,260
Second extension for five years	1233 to 1237 "	Ditto	2,24,670
Last settlement under Regulation VII. of 1822	First year, ...	Ditto	2,32,998
	Last year, ...	Ditto	2,29,672

The change in the demand during the settlement has been as follows:—

	Rs.
<i>Increase.</i> —Resumption of revenue free-land	223
<i>Decrease.</i> —Remission for land taken up for a road	132
Ditto declared to be nazul	15
Reductions for over-assessment	3,394
	<u>3,548</u>

Transfers.

*Transfers from the persons found in possession at the conquest arranged under the head of transfer to which the land was last subject.*

Private sale.	Auction in execution of decrees.	Auction for arrears of revenue.	Mortgage.
Acres.	Acres.	Acres.	Acres.
19,556	15,788	7,401	13,258

*Transfers from the persons from whom engagements were taken at the last settlement arranged under the head of the transfer to which the land was last subject.*

Private sale.	Auction in execution of decrees.	Auction for arrears of revenue.	Mortgage.
Acres. 18,802	Acres. 11,636	Acres. 3,195	Acres. 13,370

The result exhibited is as disastrous as in Sahpau, but the causes which brought it about, although similar, did not act at the same period. Unlike their neighbours in Sahpau, who did not succumb until the heavy assessment of Mr. Tyler at last settlement, the zamindars of Sadabad were ruined by the exorbitant revenues collected from them during the first few years of our rule when just emancipated from Bhagwant Singh's exactions; they were suddenly raised to the position of zamindars without their fully recognising the value of the rights conferred upon them, and without their having the capital or thrift to enable them to tide over a time of great depression.

Prices realized on transfer.

Description of transfer.	Area transferred.		Price.	Average price per acre.	
	Total.	Cultivated.		On total area.	On cultivated area.
	Acres.	Acres.	Rs.	Rs. a. p.	Rs. a. p.
<i>Last settlement to revision.</i>					
Private sale...	4,561	4,129	20,870	4 9 2	5 0 10
Public sale in execution of decree ...	5,043	4,572	22,821	4 8 5	4 15 10
Mortgage ...	12,858	11,785	93,771	7 4 9	7 15 4
Total	22,462	20,486	137,462	6 1 11	6 11 4
<i>Revision to mutiny.</i>					
Private sale ...	2,387	2,231	24,915	10 14 4	11 2 2
Public sale in execution of decree ...	1,829	1,693	11,282	6 2 8	6 10 4
Mortgage ...	2,912	2,794	28,817	9 14 4	10 3 0
Total	7,028	6,723	65,014	9 4 0	9 10 0
<i>Mutiny to 1873.</i>					
Private sale...	6,556	6,270	99,610	15 3 1	15 14 2
Public sale in execution of decree...	2,033	1,775	13,364	6 9 2	7 8 5
Mortgage ...	4,109	3,963	61,184	14 14 0	15 6 9
Total	12,698	12,008	1,74,108	13 11 5	14 7 11

From the above statement have been excluded all cases where any inaccuracy of record or collusion was suspected, and only instances of *bond-fide* transactions have been included.

Comparison of past and present areas.

Period.	Total area.	NOT ASSESSABLE.					ASSESSABLE.						
		Muñá.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Out of cultivation.		Cultivated.			
								Culturable waste.	Fallow.	Irrigated.		Total cultivated.	Total assessable.
										Wells.	Dry.		
Last settle- ment.	Acres 94,562	1,674	1,453	927	8,665	12,719	218	6,869	1,668	52,717	20,371	73,088	81,343
Revision...	94,721	614	1,513	1,143	7,220	10,490	192	5,292	919	58,075	19,753	77,828	84,231
Present set- tlement.	93,950	484	1,257	678	5,454	7,873	396	3,675	340	71,868	9,793	81,666	86,077

This statement calls for little remark beyond the facts that cultivation has increased 11·74 per cent., and irrigation 36·33 per cent., since last settlement.

The selected area over which my inductions respecting rates extended embraces 26,077 acres, or 44·41 per cent. of the whole area occupied by tenants. The individual soil rates obtained from this area, avoiding sub-division into wet and dry to prevent the reduction of the number of instances, are—

				Number of examples.	Total area.	Rent realized	Rate.
					Acres.	Rs. a. p.	Rs. a. p.
Gauhan I.	...	...	...	156	140·87	1,783 0 7	12 10 4
Ditto II.	...	...	...	58	60·90	661 13 0	10 13 7
Manjha I.	...	...	...	139	211·58	2,045 4 9	9 10 5
Ditto II.	...	...	...	133	178·65	1,517 11 6	8 7 8
Home tarai	...	...	...	9	5·78	49 12 0	8 9 9
Barha I. good	...	...	...	824	2,023·84	14,790 14 3	7 5 0
Ditto I. fair	...	...	...	935	2,724·60	17,739 2 3	6 8 2
Ditto II.	...	...	...	508	1,311·750	7,600 14 0	5 12 4
Puth	...	...	...	79	182·67	757 0 0	4 2 3
Barha tarai	...	...	...	50	86·15	501 2 0	5 13 1

Giving due weight to the higher rates prevalent for compact holdings, and making use of my knowledge acquired in the field of the capabilities of the different soils, I modified the exemplar averages to a certain extent, and finally fixed on those rates which, on being applied to their corresponding soil areas, brought out an aggregate result almost identical with the total rental actually realized from the whole selected area of 26,077 acres :—

				Acres.	Rs. a. p.	Rs. a. p.
Gauhan I.	...	...	...	703 X	12 8 0 =	8,787 8 0
Ditto II.	...	...	...	677 X	10 8 0 =	7,108 8 0
Manjha I.	...	...	...	865 X	9 6 0 =	8,109 6 0
Ditto II.	...	...	...	2,098 X	8 4 0 =	17,308 8 0
Irrigated barha I., good	...	...	...	5,541 X	7 4 0 =	40,172 4 0
Ditto fair	...	...	...	8,744 X	6 6 0 =	55,743 0 0
Ditto II.	...	...	...	4,855 X	5 8 0 =	26,702 8 0
Dry barha I., good	...	...	...	103 X	5 4 0 =	540 12 0
Ditto fair	...	...	...	135 X	4 6 0 =	590 10 0
Ditto II.	...	...	...	1,078 X	3 8 0 =	3,773 0 0
Home tarai	...	...	...	44 X	8 4 0 =	363 0 0
Irrigated barha tarai	...	...	...	487 X	5 12 0 =	2,800 4 0
Dry Ditto	...	...	...	70 X	4 0 0 =	280 0 0
Irrigated puth	...	...	...	287 X	3 0 0 =	861 0 0
Dry do.	...	...	...	390 X	2 0 0 =	780 0 0
				26,077		1,73,920 4 0

Rental actually realized, Rs. 1,74,102.

Estimated rental based  
on rates.

The estimated rental of the whole pargana at assumed  
rates—

					Acres.	Rs.		Rs. a. p.
Gauhan I.	...	...	...	...	2,074	×	12½	= 25,925 0 0
Ditto II.	...	...	...	...	2,655	×	10½	= 27,677 8 0
Manjha I.	...	...	...	...	3,511	×	9½	= 32,915 10 0
Ditto II.	...	...	...	...	6,540	×	8½	= 58,955 0 0
Irrigated barha I, good	...	...	...	...	15,911	×	7½	= 1,15,354 12 0
Ditto fair	...	...	...	...	24,114	×	6½	= 1,58,786 12 0
Ditto II.	...	...	...	...	14,100	×	5½	= 77,550 0 0
Dry barha L. good	...	...	...	...	440	×	5½	= 2,310 0 0
Ditto fair	...	...	...	...	958	×	4½	= 4,191 4 0
Dry barha II.	...	...	...	...	4,304	×	3½	= 15,064 0 0
Home tarāi	...	...	...	...	306	×	8½	= 1,699 8 0
Irrigated barha tarāi	...	...	...	...	1,583	×	5½	= 9,102 4 0
Dry ditto	...	...	...	...	325	×	4	= 1,300 0 0
Irrigated pūth	...	...	...	...	1,307	×	3	= 3,921 0 0
Dry do.	...	...	...	...	3,221	×	2	= 6,442 0 0
Do. khādar	...	...	...	...	417	×	4	= 1,668 0 0
					81,646			5,38,002 10 0

I did not anticipate that at assessment full half assets could be taken in all villages ;  
Assessment. leniency must be shown to those of the old zamindars who  
continue to hold on. My rates and proposals were sanctioned  
by the Board of Revenue in their letter No. 465N., dated 31st May, 1878, to the  
address of the Commissioner, Agra division. The declared assessments were  
Rs. 2,55,116, and these remained unchanged both on appeal and on review of the  
statements by the Board of Revenue. The assessments were provisionally sanctioned  
in G. O. No. 1387, dated 22nd May, 1878.

Financial results. The new demand is, therefore, an increase of Rs. 25,444, or  
11 per cent. on the old.

The average recorded rental of the 22 years preceding settlement was Rs. 3,29,127,  
and the average interpreted rental Rs. 3,68,891. For the last  
Rentals before and after enhancement. year of the settlement the former was similarly Rs. 3,53,662, and  
the latter Rs. 4,19,467. The interpreted rental at preparation  
of the rough records was Rs. 4,37,419, or an all-round rate of Rs. 5.36 the acre. Con-  
cealment of assets is practised by many of the new zamindars, who treat the portion of  
the rent not recorded as bond debts recoverable in the civil courts. The rentals  
after completion of enhancements were—

Description.	Area.	Rent.	Rate.
	Acres.	Rs.	Rs. a. p.
Sir	17,749	8,143	...
Ex-proprietary tenants	164	1,325	8 1 3
Land held by resident tenants with occupancy rights	20,958	115,926	5 8 6
Ditto non-resident tenants with occupancy rights	3,681	18,760	5 1 7
Ditto resident tenants-at-will	31,194	189,533	6 1 2
Ditto non-resident tenants-at-will	6,468	35,204	5 7 1
Rent-free land granted by zamindars	690	...	...
Cultivated gardens, &c.	1,087	65	...
Total	81,991	3,68,956	...

This gives an interpreted rental of Rs. 4,73,414, or an all-round rate of Rs. 5.77.  
Siwai items and the necessary allowance for concealment of assets bring this to not far  
from double the new assessment.

M. A. McCONAGHEY.

General Statement of Pargana Sadabad.

Number.	Village.	STATISTICS OF AREA.										Incidence of present revenue on total area per acre.			Incidence of present revenue on total assessable area (cultivated and cultivable) per acre.			Incidence of present revenue on total cultivated area per acre.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
		NOT ASSESSABLE.					ASSESSABLE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Highest revenue of 1st settlement.		Highest revenue of 2nd settlement.		Highest revenue of 3rd settlement.		Average of last five years.		Present revenue.		Total area in acres.		Revenue-free.		Site.		Occupied by water.		Barren waste.		Total.		Groves.		Old waste.		Late ly thrown out of cultivation.		Irrigated.		Not irrigat- ed.		Total cul- tivated.		Total assessable.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
1	Abhaipura	950	950	1,200	1,370	1,500	474	...	9	1	4	14	1	18	...	408	33	441	460	3	2	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	

28 Garhi Aharan	661	661	1,000	658	800	303	1	9	1	1	6	11	1	17	...	274	...	274	292	2 10 3	2 11 10	2 14 9
29 Garhi Nikanth	387	387	378	383	500	190	12	...	...	1	18	31	...	3	...	147	9	156	159	2 10 1	2 3 4	2 3 0
30 Ghatampur	1,500	1,500	1,200	1,050	1,150	533	...	4	3	3	12	19	...	22	...	316	166	482	514	2 2 6	2 3 9	2 3 0
31 Ghundha	1,501	1,501	1,850	1,465	1,670	572	...	5	3	3	18	26	...	13	...	443	68	531	546	2 12 9	2 14 11	2 0 2
32 Giga	1,309	1,309	1,550	1,355	1,530	603	...	6	4	4	21	37	...	3	...	475	81	556	566	3 3 9	3 7 1	3 8 1
33 Gursauti	1,305	1,305	1,450	1,355	1,420	470	...	6	4	4	20	35	...	8	...	416	10	426	485	3 0 4	3 4 3	3 5 3
34 Guthera	4,961	4,961	4,961	6,400	6,900	2,527	5	25	8	8	130	158	...	63	...	2,017	272	2,389	2,369	2 11 8	2 14 7	2 0 3
35 Hasanpur Baru	1,900	1,900	2,000	2,200	2,350	777	...	15	11	1	9	21	...	1	...	661	...	661	756	2 0 5	2 1 5	2 8 11
36 Jaranpur	4,000	4,000	5,500	6,501	7,700	3,221	6	62	6	6	270	343	...	93	...	2,550	243	2,798	2,878	2 0 3	2 10 10	2 12 1
37 Jatoli	2,445	2,445	2,845	2,600	3,000	946	3	13	4	4	38	48	...	16	...	831	48	879	898	2 2 9	2 5 5	2 6 7
38 Jetai	2,383	2,383	2,823	2,400	4,100	1,931	4	13	18	18	181	216	...	303	...	1,345	41	1,386	1,715	2 2 0	2 6 3	2 15 4
39 Jagar	1,564	1,564	1,400	1,001	1,100	7	...	5	4	4	7	16	...	4	...	344	...	344	352	2 15 10	2 3 0	2 3 7
40 Kajrauli	9,144	9,144	5,000	5,505	5,900	2,137	4	41	18	18	49	112	...	34	...	1,753	213	1,968	2,015	2 12 5	2 14 10	2 0 0
41 Karjauli	7,500	7,500	6,300	6,431	6,100	2,007	30	46	16	16	81	173	...	44	...	1,704	71	1,775	1,834	3 0 7	3 5 2	2 7 0
42 Karjauli	901	901	65	775	800	263	3	4	3	3	2	12	...	...	...	352	...	352	353	3 0 4	3 5 2	2 3 9
43 Karkauli	2,501	2,501	2,000	2,123	2,230	727	...	8	6	6	12	26	...	30	...	649	18	662	701	3 1 1	3 2 11	2 5 11
44 Karkauli	4,306	4,306	5,39	3,381	4,000	1,433	3	18	7	7	35	63	...	8	...	1,364	5	1,369	1,420	2 11 2	2 13 1	2 14 9
45 Kuktai	712	712	900	1,048	1,280	516	12	13	1	1	37	68	...	8	...	402	43	445	453	2 7 8	2 13 2	2 14 0
46 Kumhal	1,314	1,314	1,100	1,301	1,050	338	...	...	...	...	1	11	...	7	...	268	42	310	317	3 3 3	3 5 0	3 6 2
47 Kumbhal Mahal B-	1,314	1,314	...	...	236	75	...	...	...	...	3	8	...	1	...	68	3	71	72	3 1 1	3 3 1	3 3 10
48 Kunjalpur	Included in Nangan n.	2,800	2,800	360-7-3	400	127	...	2	...	...	3	5	...	1	...	113	8	121	132	3 2 5	3 4 5	3 5 0
49 Kupa	2,581	2,581	2,000	2,900	2,350	1,237	4	11	22	22	271	308	...	9	...	861	49	910	929	2 6 2	2 8 9	3 3 10
50 Kursanda	16,000	16,000	12,000	14,302	16,045	4,641	23	82	23	23	78	203	...	52	...	4,135	127	4,262	4,386	3 8 4	3 11 0	3 12 1
51 Manabatpur	1,360	1,360	1,200	1,245	1,300	440	1	...	4	4	26	44	...	16	...	282	112	394	415	2 14 8	3 2 1	3 4 8
52 Mai	2,500	2,500	2,201	1,971	2,050	589	...	14	3	3	14	31	...	30	...	453	64	517	558	3 7 8	3 10 9	3 15 5
53 Mandaur	4,101	4,101	6,630	4,315	5,400	4,326	18	24	110	110	1,103	1,255	...	323	...	1,118	1,430	2,541	3,071	1 4 0	1 12 1	2 1 11
54 Mangru	2,385	2,385	2,600	2,423	2,550	989	...	...	...	...	78	87	...	5	...	697	148	845	902	2 9 3	2 13 2	3 0 3
55 Mansiya	3,308	3,308	2,570	2,968	2,900	990	1	10	6	6	28	45	...	5	...	882	55	937	953	2 14 6	3 0 8	3 1 6
56 Marha Bhoj	2,296	2,296	2,750	2,696	2,850	954	5	15	2	2	34	46	...	33	...	850	17	867	908	2 15 9	3 2 2	3 4 7
57 Do. Pithu	3,300	3,300	4,300	3,900	3,800	1,531	6	16	4	4	343	369	...	44	...	1,078	87	1,115	1,168	2 7 7	3 4 1	3 6 6
58 Nagla Kale	3,203	3,203	2,500	2,691	2,100	68	...	15	1	1	16	32	...	21	...	549	5	554	576	3 7 3	3 10 4	3 12 8
59 Patti Bahram	Included in Marha.	1,100	1,100	1,048	950	34	...	6	1	1	22	29	...	7	...	379	35	314	325	2 10 11	2 14 9	3 0 5
60 Patti Sukli	950	950	723	725	90	505	...	...	...	...	61	151	...	6	...	347	6	348	354	1 12 6	2 8 8	2 9 5
61 Marhaoli	3,700	3,700	6,150	5,800	7,000	4,120	5	49	20	20	661	735	...	385	...	1,686	1,308	2,994	3,385	1 11 2	2 1 1	2 5 5
62 Marhal	2,197	2,197	2,700	2,850	3,000	1,148	5	11	14	14	75	106	...	141	...	772	124	896	1,043	2 9 10	2 14 0	3 5 7
63 Mirpur	1,001	1,001	800	825	950	468	1	4	8	8	6	19	...	102	...	343	...	343	449	2 0 6	2 1 10	2 12 3
64 Nagla Bauru	1,022	1,022	1,022	1,030	1,050	317	1	3	3	3	5	12	...	11	...	390	2	292	306	3 5 0	3 7 1	3 9 6
65 Do. Banard	800	800	1,000	1,011	1,000	336	...	...	...	...	4	7	...	13	...	396	17	313	329	2 15 7	3 0 8	3 3 1
66 Do. Dali	1,357	1,357	1,700	1,933	2,200	708	5	10	3	3	9	27	...	32	...	626	17	642	676	3 2 1	3 4 1	3 6 10
67 Do. Ghariba	593	593	950	750	850	330	1	2	1	1	4	8	...	14	...	342	65	308	322	2 9 3	2 10 3	2 12 2
68 Nanan	1,072	1,072	90	1,771	1,850	722	1	3	1	1	14	19	...	46	...	560	95	655	703	2 9 0	2 10 1	2 13 1
69 Narayanpur Bad,	424	424	800	901	1,060	310	...	...	...	...	3	9	...	4	...	292	...	292	296	3 6 8	3 9 3	3 10 1
70 Nasirpur or Ras-	2,900	2,900	3,300	4,001	3,500	1,223	18	24	8	8	34	84	...	56	...	977	102	1,019	1,139	2 13 9	3 1 2	3 3 11
71 Nasirpur Wiran ...	190	190	300	564	720	290	1	...	2	2	11	14	...	1	...	254	31	275	276	2 7 9	2 9 9	2 9 10

General Statement of Pargana Sadabad—(concluded.)

STATISTICS OF AREA.																								
Number.	Village.	NET ASSESSABLE.					ASSESSABLE.										Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and cultivable) per acre.	Incidence of present revenue on total cultivated area per acre.					
		Total area in acres.					Cultivable and unencultivated.					Cultivated.												
		Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Old waste.			Late ly thrown out of cultivation.	Irrigated.	Not irrigat-ed.		Total cul-tivated.	Total assessable.								
								15	16	17			18	19						20				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
72	Kangraon	14,457	14,484	8,800	9,914.8.9	11,509	3,479	6	76	48	106	322	15	59	2	3,954	117	3,171	3,347	9	4	11	3	8
73	Nanpara	1,700	1,700	1,850	1,850	2,000	616	1	8	2	13	24	1	23	...	541	27	348	592	3	8	1	3	8
74	Fachaoiri	2,340	2,340	2,340	2,340	2,400	717	1	6	4	26	26	1	23	...	543	93	645	678	3	10	0	3	15
75	Paranara	1,600	1,350	2,000	2,125	1,900	670	3	7	1	6	17	7	16	...	559	76	629	653	2	13	4	2	14
76	Peora	475	475	975	975	1,000	303	...	4	6	7	17	3	11	...	573	...	573	386	3	9	3	7	11
77	Pipramal	1,332	1,332	2,350	2,603	2,400	1,343	3	17	3	31	53	2	85	...	315	1,303	1,399	1,399	2	8	6	2	12
78	Pussahi	711	711	711	740	854	311	1	3	4	11	19	1	4	...	243	28	266	322	2	31	9	3	14
79	Raipura	1,551	1,551	1,251	1,706	1,706	574	...	4	3	9	16	4	11	...	516	37	543	558	2	15	2	3	9
80	Rajnagar	669	669	950	950	1,070	372	2	4	6	6	14	6	13	...	300	23	331	349	2	16	3	3	8
81	Rashidpur	Unascerttainable.	...	...	1,200	1,200	372	2	6	3	9	20	1	3	...	240	8	348	353	3	7	1	3	10
82	Sadabad khas	2,500	2,500	2,500	2,500	2,500	955	131	69	7	46	253	6	29	...	590	106	696	733	2	0	6	2	11
83	Sakra	2,500	2,500	2,750	2,848	2,950	963	3	16	2	30	50	3	36	...	763	376	959	1,038	2	13	11	2	15
84	Salempur	5,700	4,950	5,800	5,393	5,500	1,779	1	14	5	76	97	8	49	...	1,453	167	1,625	1,832	3	1	6	3	4
85	Samadpur	2,180	1,901	2,000	1,950	1,870	555	1	8	10	11	30	1	9	...	513	11	594	538	3	9	1	3	7
86	Saranath	2,200	2,150	2,316	2,181	2,240	655	...	13	15	10	43	3	8	...	517	85	603	613	3	6	9	3	10
87	Sarnastpur	475	475	475	454	450	151	1	3	...	...	6	...	...	...	114	31	145	145	2	15	5	3	1
88	Shahbaspur	475	475	825	855	1,050	429	3	3	...	...	15	3	...	...	379	39	405	414	2	7	3	2	8
89	Shepar	1,308	1,308	1,350	1,347	1,750	919	4	11	1	144	152	1	41	...	638	61	699	757	1	14	5	2	4
90	Sista	2,500	2,500	2,400	2,400	3,400	1,139	...	12	9	33	59	1	4	...	1,015	59	1,094	1,090	2	15	9	3	2
91	Sithrapur	1,400	1,400	1,000	1,001	1,300	450	...	5	3	7	15	4	13	...	418	12	439	445	2	13	2	2	4
92	Susain	4,901	4,975	3,501	3,600	3,900	1,745	3	2	26	25	104	1	93	...	694	853	1,540	1,540	2	3	9	2	6
93	Tajpur	3,401	3,001	2,10	2,301	2,880	957	4	24	5	24	56	3	17	...	715	164	839	901	3	0	2	3	1
94	Tamal	1,601	1,601	1,700	1,800	1,850	555	...	34	8	8	17	5	4	...	515	14	529	538	3	5	4	3	7
95	Tasiga	9,050	8,319	6,300	6,847	7,300	2,854	3	...	11	59	100	35	75	...	2,060	98	2,149	2,345	3	1	7	3	4
Total		2,32,138	2,23,749	2,31,574	2,39,579	2,55,116	93,950	484	1,957	678	5,454	7,878	896	3,375	340	71,868	9,798	81,966	86,077	2	11	5	2	15



## MAHÁBAN.

**History**—Changes in the constitution of the pargana since last settlement—Boundaries—Description—Baisuri—Jumna valley—Area and population statistics—Increase in population—Principal towns and villages—Plough and cattle statistics—Sugarcane presses—Communications—Irrigation statistics—Crop statistics—Statistics of cultivating occupancy by caste—Comparison of present cultivating statistics with those of the revision of records—Changes in the proprietary possessions of the different castes since 1808—Proprietary statistics—Transfers—Prices realised at transfer—Fiscal history from the commencement of our rule until the settlement under Regulations VII. of 1832 and IX. of 1833—Fiscal history of talúkas Ar, Sonkh, and Madim up to the commencement of the expired settlement—Fiscal history of the expired settlement: (a) Mahában as constituted in 1832; (b) the old Mát villages; (c) Tappa Sonai; (d) tappa Raya; (e) the talúkas and villages received from Mursán—General summary—Comparison of past and present areas—System of inspection. Mode of determining soil rates with rates used in the assessment—Estimated rental based on rates—Assessment—Financial results—Rentals before and after enhancement—General statement.

MAHÁBAN, according to the *Ain-i-Akbari*, was one of the 33 maháls of Sirkar Agra.

**History.** In addition to its present area it then contained the subsequently formed pargana of Mát, and part of Sádabad which did not become a separate subdivision until the reign of the Emperor Sháhjahan. Immediately after the conquest in 1803 it was attached to the Aligarh district, and was one of the parganas held in farm by Thákur Dayaram of Háthras until 1808. In 1815, on the constitution of the Sub-Collectorate of Sádabad, it became part of it, and continued attached when, in 1824, Sádabad was raised to the rank of an independent district. In 1832 it became part of the newly formed Muttra district.

Changes in the constitution of the pargana since last settlement.

* Artoni.	Pasgaon.
Chabran.	Dahrua.
Gokul.	Islámpur.
Kharera.	Kalyanpur.
Mubarikpur.	Nurpur.
Nagla Kazi.	Raval.
Jagdispur.	Jataura.
Nagla Mir Bulaki.	

At last settlement pargana Mahában consisted of 102 villages, 87 khalsa, and 15 muáfi,\* with a total area of 94,352 acres. Since then its boundaries have been much enlarged by the addition of—

(a) Tappas Ráya and Sonai formerly recognised as two distinct subdivisions, assessed and reported on separately.

- (b) Talúkas Ar Laskarpur, Madim, and Sonkh from pargana Mursán.
- (c) The three individual villages of Tehra, Chuhari, and Khandiya from the same pargana.
- (d) The nine villages of Itauli, Lohban, Shahpur Ghausna, Kinari, Isapur, Abdul Nabipur, Sihora, Taisabpur, Raipur Mai, from pargana Mát.
- (e) The two villages of Baltikari and Nagla Bírbal from pargana Sádabad.
- (f) The village of Sherni from Aligarh, now incorporated with Aira Khara of tappa Sonai.

In the same period one village, Nasirpur Rasmai, now in Sádabad, has been taken from Mahában. The present area of the tahsil is 152,083 acres, or 237·63 square miles. Of the 15 muáfi villages mentioned above as existing at last settlement, three (Jagdispur, Jataura, and Nagla Mir Bulaki) have been since resumed and assessed to revenue, whilst of the 87 khálsa villages in the pargana at settlement one, as I have just remarked, has been transferred. On the other hand a new village called Shamilát patti, belonging to the zamindars of the three villages of Saidpur, Nagla Girdhar, and Nagla Bali, has been brought on the list. Thus, in the old pargana the

number of khálsa villages has been raised to 90 and the muáfi villages reduced to 12. Adding the 14 individual villages (all khálsa) received from Mursan, Mát, and Sádabad, the tahsíl consists of 104 khálsa and 12 muáfi villages, besides tappas Raya and Sonai, and talúkas Ar Laskarpur, Sonkh, and Madim.

In tappa Ráya there are now 20 khálsa and 4 muáfi estates. Of these one khálsa and two muáfi have separate boundaries, and are in reality distinct villages in every respect. The remaining 21 estates have all been surveyed together owing to the manner in which their fields are intermingled. The total area of this aggregate of estates is 11,934 acres, and the difficulty which has been experienced in preparing an accurate record of rights of the whole has been immense, surpassed only by that experienced in Aira Khera, where the tennres are, if anything, more complicated and the area even larger than that of Ráya. Tappa Sonai consists of two aggregates of intermixed properties—Aira Khera with an area of 17,912 acres, and Sonai with an area of 2,275 acres. Aira Khera contains within its boundaries one muáfi and 21 khálsa estates; whilst in Sonai there are 8 khálsa and 3 resumed muáfi maháls. The three talúkas of Ar Laskarpur, Sonkh, and Madim are similarly constituted, and in them the Mursán Rája is acknowledged as talúkdar, and is entitled to receive from the biswadars or inferior proprietors a certain sum yearly. In talúka Ar Laskarpur there are 11 estates with separate interests, in Madim 5, and in Sonkh 13—29 in all.

The whole tahsíl, therefore, consists of 105 khálsa and 14 muáfi villages with separate boundaries, together with 6 talúkas or aggregates containing 80 khálsa and 3 muáfi estates. In 30 villages abutting on the river the khádar or valley area liable to fluvial action has been demarcated and separately assessed.

**Boundaries.** The tahsíl is bounded on the west and south by the river Jumna, on the north by pargana Mát, and on the east by parganas Gorie, Mursán, and Sádabad.

**Description.** It is very straggling and irregular in shape. It narrows to a point on the extreme north, where it runs wedge-like between parganas Mát and Gorie; on the extreme south also it ends similarly in the Sehat promontory enclosed in a loop of the river facing Akbar's tomb at Sikandra. In the centre the pargana widens out considerably, and opposite the city of Muttra, it reaches its maximum breadth of 14 miles. Its maximum length between the two points just mentioned is 32 miles, or nearly  $2\frac{1}{2}$  times its greatest breadth. Following the windings of the stream, Mahában borders on the Jumna for at least 50 miles of its course, and this is the most striking physical feature which distinguishes it from the other Duab parganas further east. For a distance varying from one to three miles inland from the high banks of the river the effect of the stream on the character of the country is most marked. This belt is uneven in surface, broken up either by ravines or heavy sandhills. The ravines do not here run in an unbroken chain along the whole course of the river, but often entirely disappear, giving place to the sandhills which are a more common feature further up stream, while in those parts where they are most developed the ravines never extend far inland, and are nowhere very deep, rugged, or intricate. Commencing from the north and following the course of the river, we find that from Panigaon to the pontoon bridge at Muttra, where for a distance of six miles the river sweeps in an outward curve from the Mahában bank, there are no ravines of any consequence, but a series of sandhills instead; while on the opposite side, along the Brindaban and Muttra road, the ravines are both deep and extensive. After the Muttra bridge is passed, the curve of the river changes, and ravines begin to appear in Gopálpur, getting wider and deeper as Gokul is approached. Beyond Gokul the river takes a sudden bend outwards, and in that bend the soil is a pure drifting sand, like that found on the seaside at home. Passing this bend the curve again turns inwards, and the ravines of Jogipur, Nabipur, and Nurpur are the consequence; then comes the loop of Sherpur and Basai with its heavy sand, followed in its turn by the most marked

inward turn in the pargana, which extends from Basai to Nagla Azim, where alone really hard and extensive ravines are found.

This belt of sand and ravines is for the greater part uncultivated: hence the general rent-rate of the pargana is less affected by its presence than would at first be anticipated. It is very useful for grazing purposes. Some of the ravines are very fairly wooded, and in the sandy tracts "sarpat" or coarse thatching grass grows in profusion. As soon as the influence of the river ceases and this zone is passed, the country becomes level in surface and assimilates in almost every respect to parganas Sâhpau and Sâdabad and the western portion of pargana Jalesar. The prevailing soil is good "piliya" or light loam. As in Sâdabad, isolated tracts of sand occur even in this inland portion, but they are on the whole of comparatively small area.

Baisuri is very prevalent in the east of the pargana, in that tract of country which extends from Râya on the north-west to the Bisawar border on the south-east, averaging 10 miles in length and 5 miles in breadth. It is also found in great quantities in the northern portion of Aira Khera. Elsewhere the pargana is very free from it. It is met with more or less in 23,180 acres, or 18 per cent. of the whole cultivated area, a rather larger proportion than in Sâdabad.

Owing to the continuous action of the river the area and conformation of the Jumna valley or khîdar change yearly, as well as the proportion of it under cultivation. The soil is all alluvial, and, as a large portion of it depends on the nature of the deposit left by the yearly flood, it varies in quality from year to year. The higher fields under the bângar cliff are generally of firmer soil and of better quality than those which are more subject to inundation, and in some of them very fine cane is grown, while the commoner crops are cotton and jaâr followed by wheat and barley. In the lower lying fields wheat, barley, and peas are generally grown. These are for the most part unirrigated, and if the deposit has been rich and the season otherwise good the outturn is heavy, equalling that in first class irrigated uplands. If, on the other hand, the deposit has been sandy, and the season too moist, the outturn is light. Close to the river, in what seems to be pure sand, melon and cucumber cultivation is extensively carried on during the hot months, and in the vicinity of large towns the cultivators are known to pay Rs. 5 and even Rs. 6 per bigha, in addition to the heavy cost of the manure required, for the right of using this land.

Area and population statistics.

The total area of the pargana is 152,083 acres, or 237 square miles, of which 127,226 acres, or 199 square miles, are under cultivation.\*

This area is divided as follows :—

					Total area.	Cultivated area.
					Acres.	Acres.
Upland	...	{	Khálsa	...	132,055	113,529
			Muáfi	...	14,379	11,952
Low land	...	{	Khálsa	...	4,629	1,261
			Muáfi	...	1,020	484
					<hr/>	<hr/>
					152,083	127,226

There are 515 inhabited sites with an average area of 295 acres per site. The population during the year of inspection (1281 fasli) was 146,194, being 61 to each square mile of area and 735 to each square mile of cultivation.

\* Colonel Anderson's area deduced from measurements in block is 152,817.62 acres, or 236.78 square miles; the difference is caused by the different methods of measurement.

The number of houses was given at 32,716. The population by castes is as follows:—

Caste.					Agriculturists.	Non-agriculturists.	Total.
Ját	...	...	...	...	36 484	5,112	41,596
Brahman	...	...	...	...	15,229	11,361	26,590
Chamár	...	...	...	...	5,216	15,646	23,902
Baniya	...	...	...	...	897	7,256	8,153
Muhammadian	...	...	...	...	905	5,614	6,519
Koli	...	...	...	...	69	4,033	4,102
Barhai	...	...	...	...	1,257	2,706	3,963
Nai	...	...	...	...	743	2,713	3,456
Garariya	...	...	...	...	1,594	1,527	3,121
Bhangi	...	...	...	...	112	2,202	2,314
Kumhar	...	...	...	...	158	1,918	2,076
Dhobi	...	...	...	...	181	1,789	1,970
Kahar	...	...	...	...	358	1,445	1,803
Bairagi	...	...	...	...	543	1,338	1,681
Teli	...	...	...	...	205	1,237	1,442
Thakur	...	...	...	...	1,049	343	1,384
Kachhi	...	...	...	...	791	582	1,373
Ahir	...	...	...	...	775	305	1,080
Sunar	...	...	...	...	38	981	1,019
Other castes	...	...	...	...	1,883	6,737	8,620
Total					71,510	74,684	146,194

Half the agricultural population are Játas. The Muhammadans are chiefly confined to the towns of Mahában and Ráya and to the villages of Dahrúa, Hayatpur, Shahpur Ghausna, Nera, Pachawar, Werni, Aira Khera, Barauli, Beohin, Isapur, Nimgaon, and Sonai.

Owing to the numerous changes in the constitution of the pargana since last settlement it is impossible to ascertain with accuracy the population at the different censuses over any fixed area. The following averages per square mile will, however, very fairly exhibit the progress which has taken place since the first enumeration in 1848 was undertaken.

Year.					Number of inhabitants to each square mile of area.
1848	...	...	...	...	460
1853	...	...	...	...	577
1865	...	...	...	...	553
1872	...	...	...	...	605
1873-74	...	...	...	...	617

The boundaries of the pargana have remained unaltered since 1865, in which year the population was returned at 131,362 against 143,955 in 1872 and 146,194 in 1874.

Principal towns and villages.

The chief towns and villages with their population are:—

Mahában Khas	..	...	...	...	6,567
Gokul	...	...	...	...	4,477
Baldeo	...	...	...	...	3,333
Werni	...	...	...	...	3,766
Ráya	...	...	...	...	3,634
Karab	...	...	...	...	2,313
Barauli	...	...	...	...	2,071
Lohban	...	...	...	...	2,061

The number of ploughs is 9,979 and of plough-cattle 20,487; other cattle amount to 34,701, sheep and goats to 11,773, and horses to 2,623. The average plough area is therefore 12.75 acres.

The are 380 sugarcane presses in the pargana, and as only 299 acres are returned as under that crop, it is certain that cane was grown much more extensively formerly than it is now. Cane has always been produced with difficulty; and now that, owing to the great improvement in communica-

tions, sugar and gur can be easily imported, the cultivation of this staple, except in a few favoured spots where water is both good and easily got at, has been almost altogether abandoned.

The means of communication are good. There are two metalled high roads ; one which passes through Mahában and runs close to Baldeo, connecting the Gokul ferry with Sádabad and the Manikpur railway station, and the other joining Muttra and Aligarh with a branch to Háthras. The former road has not been repaired for some years. The Muttra and Háthras Light Railway follows the metalled road between Muttra and Háthras junction. There are besides three good unmetalled district roads connecting Ráya with the towns of Baldeo, Mát, and Gorie, and a fourth, in indifferent repair, between Mahában and the Muttra pontoon bridge. The country kucha roads, the principal of which is that from Baldeo to the Sehat ferry, are all in very fair order, and can be made use of nearly the whole year round.

There is no canal irrigation, whilst the area irrigated from rivers, jhils, and ponds in the bángar portion of the pargana, to which the following remarks and statistics exclusively apply, is very insignificant, amounting to only 153 acres in all. The newly planned Mát branch of the Ganges canal will, if completed, pass down the whole length of the tahsil. The area habitually irrigated from wells is 102,090 acres, or 80·24 per cent. of the total cultivation.

There are 12,829 wells in working order, classified as follows :—

						Wells.
Masonry	...	...	...	...	...	1,042
Garwari	...	...	...	...	...	3,284
Ajhar	...	...	...	...	...	8,317
Without any artificial support	...	...	...	...	...	186
Total					...	12,829

The average area irrigated per well is therefore 7·9 acres.

The depth to water varies considerably, but the average throughout the pargana, excluding the khádar portion, is 45 feet. The quality of the well water varies as much as its depth from the surface, and the same kind of water is never met with, over any extensive area: there may be a sweet well in one field, and a brackish or oily one in the adjoining field.

The kind of water in the existing wells is classified as follows :—

						No. of wells.
Sweet	...	...	...	...	...	5,348
Slightly brackish	...	..	...	...	...	673
„ oily	...	...	...	...	...	2,742
Brackish	...	...	..	...	...	2,000
Oily	...	...	...	...	...	292
Both brackish and oily	...	...	...	...	...	1,188
Destructive or poisonous	...	...	...	...	...	294
Containing ammonia in solution	...	...	...	...	...	291
						12,829

In the Jumna khádar, of the 1,745 acres under cultivation at assessment, 213 acres, or 12·2 per cent., were irrigated either from the river or from wells. Almost the whole of the dry area can, however, be watered, if required, from small dhenkli wells, which are sunk at a trifling expense.

## Crop statistics.

## Bangar.

KHARIF.				RABI				GARDEN CROPS OR KACHHIYANA.						
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfasli.	Dofasli.	Total.			Ekfasli.	Dofasli.	Total.			Ekfasli.	Dofasli.	Total.	
Sugarcane,	170	...	170	0.13	Wheat...	14,278	1,554	15,832	12.07	Tobacco,	82	305	387	0.30
Cotton ...	17,786	1,063	18,849	14.39	Barley,	7,630	2,473	10,103	7.71	Potatoes,	50	1	51	0.04
Indian-corn,	74	1,407	1,481	1.13	Bejhar,	24,012	632	24,644	18.79	Melons,	...	...	...	...
Juár ...	32,181	1,587	33,768	25.75	Gram ...	2,899	189	3,088	2.32	O t h e r	1,434	236	1,670	1.28
Bájra ...	8,383	1,035	9,418	7.18	Gojai ...	2,589	454	3,043	2.32	crops.				
Rice ...	2	8	10	...	Opium...	1	1	2	...	Total ..	1,546	542	2,088	1.59
Indigo ...	481	713	1,194	0.91	O t h e r	1,348	657	2,005	1.53					
Hemp ...	57	77	134	0.10	crops.									
Khurri ...	1,542	117	1,659	1.27										
Other crops,	3,255	422	3,677	2.81										
Total ...	63,931	6,451	70,382	53.67	Total ...	52,753	5,909	58,662	44.74	Area under arhar, 30,562 acres.				

## Khádár.

KHARIF.					RABI.					GARDEN CROPS OR KACHHIYANA.				
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfasli.	Dofasli.	Total.			Ekfasli.	Dofasli.	Total.			Ekfasli.	Dofasli.	Total.	
Sugarcane,	130	...	130	7.20	Wheat ...	380	9	389	21.53	Melons,	297	76	373	20.65
Cotton ...	18	...	18	0.99	Barley ...	244	31	275	15.22	Other crops..	6	...	6	0.33
Juár ...	119	64	183	10.13	Bejhar ...	274	10	284	15.72					
Bájra ..	18	63	81	4.48	Gojai ...	31	...	31	1.71	Total ...	303	76	379	20.98
Hemp ...	2	...	2	0.11	Other crops.	5	1	6	0.33					
Khurri ...	11	...	11	0.61										
Other crops,	18	...	18	0.99										
Total ...	316	127	443	24.51	Total ...	934	51	985	54.51					

Acres.

Total crop area both khádár and bángar 132,939 + fallow 865 = 133,804

Deduct dofasli 6,578, and cultivated muáfi 12,436 = 19,014

Net khálsa cultivation = 114,790

On account of the exceptionally dry character of the pargana and the considerable difficulty which attends irrigation owing to the distance of water from the surface, kharif crops are more sown than rabi crops. Of the former cotton and juár, and of the latter wheat, barley, and bejhar, are by far the most important. Sugarcane, rice, indigo, opium, and garden crops are very sparingly produced. The dofasli area is 5.17 per cent. of the whole cultivated area.

Statistics of cultivating  
occupancy by caste.

Castes.	Sir.			Ex-proprietary tenants.				Tenants with occupancy rights.				Tenants-at-will.			
	Number.	Area.	Average holding.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.
Jāts ..	3,380	24,841	7.5	1	6	30	6.0	5 0 0	2,770	22,263	22,980	8.0	4 2 9	2,493	19,393
Brahmans ..	871	6,270	7.3	1	3	8	3.0	8 10 8	2,120	12,244	50,807	5.8	4 1 7	954	6,539
Chamars ..	2	9	4.5	..	..	..	..	..	541	3,771	15,294	6.9	4 1 0	730	3,920
Baniyas ..	86	706	8.3	..	..	..	..	..	207	1,339	4,973	6.5	3 11 4	118	890
Musalmans ..	86	320	9.0	..	..	..	..	..	32	374	1,976	4.6	3 6 7	102	581
Thākurs ..	89	977	10.9	..	..	..	..	..	104	604	2,242	5.8	3 11 4	35	365
Garariyas ..	..	..	..	..	..	..	..	..	122	774	3,190	6.3	4 2 0	81	573
Ahirs ..	..	..	..	..	..	..	..	..	86	929	1,945	10.8	2 1 5	54	363
Kachhis ..	..	..	..	..	..	..	..	..	80	340	2,194	4.2	6 7 3	52	223
Mallahs ..	..	..	..	..	..	..	..	..	41	212	537	5.2	2 8 6	63	128
Gujars ..	5	30	6.0	..	..	..	..	..	6	103	235	17.1	2 4 6	11	49
Other castes ..	26	98	3.7	..	..	..	..	..	468	1,361	6,786	4.0	3 10 4	443	1,694
Total ..	4,455	33,251	7.5	2	9	38	4.5	4 3 7	6,627	44,804	1,81,790	6.8	4 1 0	5,136	34,796
											1,82,875	6.7	5 3 1		

This statement only refers to the revenue-paying portion of the uplands, and hence it appears that in this Jāts hold three-fourths of the sir area and more than half of the area cultivated by tenants; next to them in importance come Brahmans, and then Chamārs and Baniyas. Kachlis, here as elsewhere, pay the highest rates of all, but their aggregate holding is insignificant. The average rate paid by all kinds of tenants-at-will is 29 per cent. above the average rate realized from occupancy tenants, although the latter cultivate on the whole better land. There was thus room for very considerable enhancement in the rents paid by hereditary cultivators.

Comparison of present cultivating statistics with those of the revision of records.

Comparing the occupancy statistics for the khālsa area at revision of records with similar statistics prepared for 1281 fasli, we have—

	R. VISION.					PRESENT.				
	Number of holders.	Total area.	Rent.	Rate.	Average holding.	Number of holders.	Cash area.			Average holding.
							Total area.	Rent.	Rate.	
		Acres.	Rs.	Rs. a p.	Acres.		Acres.	Rs.	Rs. a p.	Acres.
Sir ...	4,166	39,699	31,650	0 12 9	9.53	4,455	33,251	76,933	2 5 0	7.46
Privileged tenants ...	...	...	...	...	...	2	9	32	4 3 7	4.5
Land held by resident tenants with occupancy rights ...	1,404	14,559	54,483	3 4 10	10.36	4,964	35,419	1,47,031	4 2 5	7.13
Land held by non-resident tenants with occupancy rights ...	316	2,531	8,535	3 5 11	8.01	1,663	9,385	34,763	3 11 3	5.64
Land held by resident tenants-at-will ...	4,016	35,375	1,33,163	3 12 3	8.81	3,866	16,106	1,38,818	5 5 1	6.75
Land held by non-resident tenants-at-will ...	1,886	14,522	45,683	3 5 9	7.70	1,270	8,690	42,017	4 13 4	6.84
Rent-free land granted by zamindars ...	908	1,237	...	...	1.36	1,379	1,371	...	...	.79
Cultivated gardens and fallow, ...	...	...	...	...	...	...	559	6	0 0 1	...
<b>Total ...</b>	<b>12,696</b>	<b>1,07,923</b>	<b>2,76,514</b>	<b>2 9 1</b>	<b>8.50</b>	<b>17,599</b>	<b>114,790</b>	<b>4,39,651</b>	<b>3 13 3</b>	<b>6.59</b>

The sir area has thus decreased, whilst the area in the possession of occupancy tenants has risen from 17,090 to 44,804 acres.

Changes in the proprietary possessions of the different castes since 1808.

When Thākūr Daya Ram's lease was cancelled in 1808, and the village communities were first admitted to engagement, the villages now constituting the pargana were owned by the different proprietary castes in the following proportions :—

Village.	Jāts.	Brahmans.	Kayaths.	Muhammādans.	Abīrs.	Jādons.	Gūjars.	Malikhanas.	Fakīrs.	Mixed castes, chiefly Jāts.
Pargana Mahābān, { (a) khālsa, (b) muāfi,	48	21	9	2	2	1	...	...	...	...
Alra Khara ...	4	1	...	...	...	...	...	...	...	...
Sonai ...	19	1	...	...	...	...	...	...	...	...
Rāya ...	5	3	1	...	...	...	...	...	...	...
Rāya ...	19	3	...	...	...	...	...	...	...	...
Ar Laskarpur, Madim	...	...	...	...	...	...	...	...	...	...
Sonkh and Mursāu villages	31	...	...	...	...	...	...	...	...	...
Māt villages ...	3	3	1	1	...	...	...	...	...	...
<b>Total ...</b>	<b>129</b>	<b>33</b>	<b>11</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>21</b>



Thus in 1808 Jāts were by far the most important element of the zamindari body; not only did they own 129 entire villages and the greater portion of 17 others, but the villages they founded were, as a rule, the larger and more important ones. Taking this into consideration, I believe that I am somewhat under-estimating their importance when I say that three-fourths of the pargana belonged to them at that period.

The following statement prepared from the attested khatiaunis exhibits the present position of the various proprietary castes over the khālśa area of the pargana :—

Caste.	Resident.			Non-resident.			Total.		
	No. of owners.	Area owned in acres.	Average holding in acres.	No. of owners.	Area owned in acres.	Average holding in acres.	No. of owners.	Area owned in acres.	Average holding in acres.
Jāts ...	3,340	36,943	11.1	357	13,658	38.2	3,697	50,601	13.7
Brahmans ...	1,012	14,752	14.6	642	22,725	44.7	1,654	43,477	25.8
Baniyas ...	185	4,385	23.7	335	6,341	45.8	520	19,716	38.0
Thākurs ...	98	1,744	17.8	32	5,197	162.4	130	6,941	53.4
Muśmans ...	156	1,922	12.3	133	2,851	21.4	289	4,773	16.5
Kayaths ...	22	321	14.6	138	3,822	27.7	160	4,143	25.9
Dhusars ...	...	...	...	7	1,258	179.7	7	1,258	179.7
Ahīrs ...	15	423	28.2	1	157	157.0	16	580	36.2
Other castes ...	33	281	8.5	74	4,575	61.8	107	4,856	45.4
Total ...	4,891	60,771	12.4	1,719	75,574	43.9	6,610	1,36,345	20.6

Area owned by proprietors						Acres.
Muśāf	...	...	...	...	...	136,345
	...	...	...	...	...	15,399
Land appropriated by Government						151,744
						339
						152,083

Contrasting this with the statistics for 1808, it appears that between that year and 1874 the Jats' possessions have diminished by half, whilst to the old Mahāban Kayaths very few of their hereditary villages remain. Baniyas have acquired over 15 per cent. of the whole area and the Pachauri family of Mahāban (Brahmans by caste) have aggrandized themselves considerably. Their importance dates from the time of Puran Chand, whose son Mukand Singh and grandson Ballab Singh were tahsildars in this district. Musāmmat Pran Kuar, widow of Bakhtawar Singh, is now the head of the family. She has adopted Ram Chand, son of Kaliyan Singh, her husband's cousin. The other important landowning families are the Baniya family of Rāya and the Brahman money-lending family of Jagdispur.

So far I have endeavoured to explain the loss and gain amongst the different castes and sections of the people without taking into account either the different transactions between people of the same caste or section, or noting what part of it took place during the currency of the settlement which has expired. To show the area which has been transferred during the settlement under the head of the transfer to which it was last subject, I append the following statement :—

Transfers among sharers, in acres.					Transfers to strangers, in acres.						
Private sale.	Sale under civil court decree.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.	Private sale.	Sale under civil court decree.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.
4,467	2,422	15	...	6	4,470	30,026	14,523	2,469	3,212	3,099	23,122

This, however, only gives the area transferred from the persons with whom the last settlement was made without any reference to the period during which such transfers were made. In the appended statement, such transfers are shown under three periods; the totals of the two statements do not agree, as in this statement all transfers are shown and land appears as many times as it has been transferred.

Transfers among sharers, in acres.					Transfers to strangers, in acres.						
Private sale.	Sale under civil court decrees.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.	Private sale.	Sale under civil court decrees.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.
1st period to the revision.											
1,907	2,204	279	...	...	12,015	11,850	8,662	5,591	...	...	40,956
2nd period, from the revision to the mutiny.											
1,107	141	780	64	...	1,853	7,392	5,364	...	1,646	...	10,242
3rd period, from the mutiny to this settlement.											
2,902	610	...	...	6	5,597	27,974	5,264	3,895	4,218	8,049	30,224

Thus of the whole area over 57 per cent. has been transferred during the currency of the settlement once or more, by far the greater part having passed to strangers; of these transfers 42 per cent. took place before the revision of records in 1850, 14 per cent. in the period between then and the mutiny, and 44 per cent. after. The three periods are of unequal length, consisting of 12 years, 8 years, and 16 years respectively; allowing for this, the transfers were most heavy during the first period and lightest during the second.

From the following statement of prices realized at transfer, all transactions of which it was impossible to ascertain, the precise terms of the bargain have been eliminated. The enquiries have also been confined to the khālśa villages:—

Description of transfer.					Total area in acres.	Price.	Average price per acre.	Revenue.	Amount of purchase money per rupee of revenue.
					Last settlement to revision.				Rs.
						Rs.		Rs.	
Private sale ...	...	...	...	...	8,383	41,204	4.9	14,863	2.77
Public sale in execution of decrees...	...	...	...	...	5,228	16,226	3.1	11,931	1.37
Public sale for arrears of revenue ...	...	...	...	...	2,825	3,581	1.3	5,928	.60
Mortgage ...	...	...	...	...	37,981	1,40,097	3.7	8,859	1.71
Total					54,417	2,01,110	3.7	1,14,481	1.75
					Revision to the mutiny.				
Private sale ...	...	...	...	...	4,427	39,733	8.9	8,879	4.51
Public sale in execution of decrees...	...	...	...	...	1,099	7,160	6.5	2,365	3.03
Public sale for arrears of revenue ...	...	...	...	...	918	2,173	2.4	1,466	1.48
Mortgage ...	...	...	...	...	8,184	68,673	8.4	19,063	3.60
Total					14,628	1,17,739	8.0	31,703	3.71
					Mutiny to end of settlement.				
Private sale ...	...	...	...	...	11,322	1,48,861	13.1	21,767	6.84
Public sale in execution of decrees ...	...	...	...	...	2,286	16,409	7.2	4,961	3.31
Public sale for arrears of revenue ...	...	...	...	...	16,643	2,24,199	13.5	33,150	5.88
Mortgage ...	...	...	...	...	...	...	...	...	...
Total					30,251	3,89,469	12.9	64,878	6.00

I have already explained the constitution of the present tahsil of Mahában; its fiscal history will be given separately for each portion. The parganas of Mát, Ráya, and Sonai were farmed to Thákur Daya Ram immediately after the conquest, and continued in his possession until 1808, when his lease was cancelled and a settlement (1216 to 1218 fasli) concluded with the village proprietors by Mr. Trant, Acting Collector of Aligarh. Mr. Trant reported on Mahában separately, and on Ráya, Sonai, and Mát conjointly. Mahában at that time contained 95 khálsa villages, 87 of which Mr. Trant settled with the zamíndars, and the remaining 8 he was obliged to farm to outsiders. His system of assessment, which he also adopted in Mát, Ráya, and Sonai, has been already explained.

The increase in revenue was great, for while the aggregate sum paid by Daya Ram for the three parganas was Rs. 67,286 in Farukhabad rupees, the jama of 1218 fasli, the third year of Mr. Trant's settlement, amounted to Rs. 1,51,141. Mr. Trant, however, expressed it as his opinion that the assessment was a light one, calculated to afford a liberal allowance to the malguzars. No case of refusal or recusancy was reported, exhibiting a striking contrast to the manner in which the settlement of Sádabad was received, where half the pargana was farmed as against only 8 villages in all these four parganas. On the 6th August, 1812, Mr. Fergusson, the Collector, reported on the completion of the next settlement, 1219 to 1222 fasli. In those villages in which the zamíndars accepted the jama of 1218 fasli Mr. Trant's settlement was not interfered with. Mr. Fergusson's attention was therefore solely directed to those estates which were held in farm, which belonged to Government, or for which the zamíndars refused to engage at the 1218 fasli jama. In Mahában the 8 villages which were leased by Mr. Trant to farmers were the only ones which came under Mr. Fergusson's revision, and in Ráya the small estates of Hansi Chura and Malhai. In Sonai and Mát Mr. Trant's settlement appears to have remained intact. On the 4th October, 1814, Mr. Fergusson again submitted a statement of the re-settlement of estates the zamíndars of which had died, absconded, or declined, to engage for 1220 to 1221 fasli. This statement includes no villages of Mahában, Mát, or Sonai, and only two of Ráya (Narwa Hansi and Pindrari)—a contrast to Jalesar and Sadabad, where many villages had for the second time to be re-settled.

This brings the history of these four parganas from the time of their release from Daya Ram's farm to the end of the first quartennial settlement in 1222 fasli (1814-15). Mr. Boulderson's deputation to the Sádabad division, which included these four parganas, took place on the 11th March, 1815, and he concluded the quinquennial settlement, 1223 to 1227 fasli. From this time until the settlement under Regulation VII. of 1822 no regular revision affecting tracts or parganas was made. The Collector's attention was solely confined to arranging for villages of which farms had lapsed, or of which the proprietors had absconded or refused to engage. In the parganas of Mahában, Mát, Ráya, and Sonai, prior to the Regulation VII. of 1822 settlement, there thus were only two regular revisions affecting all villages—(1) that conducted by Mr. Trant in 1808, and (2) that concluded by Mr. Boulderson in 1815-16. The other revisions, as far as this part of the district was concerned, were very partial.

To complete the history of the tahsil up to the commencement of the expired settlement, the talúkas of Ar, Sonkh, and Madim, formerly with Chuhari and Khandiya in parganas Mursán and Tehra of talúka Joar, must be given. They were owned originally by Ját communities, who, during the Marhatta government, were ousted from the management of their estates by Pohap Singh, grandfather of Tikam Singh, the late Rájá of Mursán. Ar was acquired by him in 1201 fasli, and Sonkh Madim in 1202 fasli. On Pohap Singh's death in 1798, he was succeeded by his son Bhagwant Singh, who had, however, for some years previous to that date the entire

Fiscal history of talúkas Ar, Sonkh, and Madim up to the commencement of the expired settlement.

control of the property. At the commencement of our rule, Bhagwant Singh was engaged with for the whole Mursán pargana, including these three talukas, and at the first triennial settlement (1213 to 1215 fasli) he was confirmed in possession. In the public accounts of that period Ar appeared as part of the Mursán talúka, whilst Sonkh and Madim were shown as a separate farm at Rs. 7,445 annual jama. At the second triennial settlement, when he was deprived of several of the farms he previously held, an istamrari lease of the Mursán talúka, including Ar, was granted to him for his own life at a jama of Rs. 80,000, and in consideration of the pecuniary losses sustained by him from the resumption of his farm, and also for the good services performed by him in Lord Lake's campaigns, Sonkh and Madim were given him as a life jagír. The hereditary zamíndars of Ar, Sonkh, and Madim petitioned to be recognised and treated as proprietors, but the Board of Commissioners, whilst acknowledging the justice of their claims and the usurpation of their rights, deprecated any interference with the Rája's management, and postponed investigation until a future opportunity. On Bhagwant Singh's death in 1231 fasli this opportunity arose. The villages were held kham for the remainder of that year, but in the following year his son Tikam Singh was admitted to engagement as over-proprietor from 1232 fasli to 1236 fasli, the old proprietors being protected by a sub-settlement with the title of mukaddams. The management of the villages was made over entirely to them, and an allowance of 15 per cent. granted to the Rája as talúkdar. In 1237-38 fasli a summary settlement, to continue in force until the completion of the regular settlement under Regulation IX. of 1833, was authorised by Government. It was conducted on the same principles as that which preceded it with this difference, that the mukaddams were called upon to furnish security in order to prevent the recurrence of the heavy losses arising out of default which the Rája had to bear under the 1232-36 settlement.

In the history of the expired settlement, to avoid confusion, the different Fiscal history of the subdivisions or parts of subdivisions must be treated of expired settlement. separately. These are :—

Mahában as constituted in	...	...	...	...	...	1832
Sonai ditto	...	...	...	...	...	"
Rája ditto	...	...	...	...	...	"
Mát ditto	...	...	...	...	...	1834.

and the talúkas of Ar, Sonkh, and Madim, plus the three individual villages of Tehra, Chuhari, and Khandiya.

Mahában, as reported on by Mr. Deedes in 1832, contained 103 villages, 88 of which (a.) Mahában as constituted in 1832. were khálsa and 15 muáfi. The 88 khálsa villages were assessed by him at different times from 1828 to 1832. Mr. Deedes' settlement was, here as elsewhere, a mauzawar one. No pargana rates were framed, but each village was treated separately and assessed on its individual circumstances and capabilities, the basis being the jamabandis framed for each estate by the tahsildar. These jamabandis were rigorously tested by Mr. Deedes, and from them estimates of fair assets formed. From such estimates 25 per cent. was generally deducted on account of expenses of collection and for zamíndar's profits, 75 per cent. being the Government jama. Mr. Deedes did not, however, adhere to the hard-and-fast rule of 75 per cent., but modified his assessments as the circumstances of each estate warranted. His estimated rentals were from 5 to 10 per cent. less than those of the tahsildar, and were rather below than above the mark of the then actual letting value of the estates; but even admitting this, there can be little doubt that Mr. Deedes' assessment was a severe one, taxing the resources of the zamíndars to the utmost.

Omitting Nasirpur Rasmai transferred to Sádabad and adding on Baltikari and Nagla Bírbal received from that pargana, the different jamas of the khálsa area of this portion of the tahsíl have been :—

	Rs.
(a) Mr. Trant's settlement (1216-18) ; standard for last year (1218 fasli) 1,40,16 4	
(b) Mr. Fergusson's revision (1219-22 fasli); for the last year (1222 fasli) 1,37,854	
(c) Mr. Boulderson's settlement (1228-27); for the last year (1227 fasli) 1,56,5 20	
(d) Jama current in 1235 fasli ... ..	1,59,69 9
(e) Jama of Mr. Deedes' settlement ... ..	1,70,464

Some changes were made by Mr. Tyler in a few villages when he revised the settlement of the talúkas in 1844, so that the demand of the last settlement was Rs. 1,70,014. The expired demand is Rs. 1,73,573, an increase of Rs. 3,559. Rs. 210 have been remitted for land taken up for roads and Rs. 463 added for alluvion and Rs. 3,306 for resumption of three whole muáfi villages (Jagdispur, Jatora, and Mír Bulaki) and patches in four other villages.

Of the 9 villages which formerly belonged to Mát, three—Sahora, Tyabpur, and (b.) The old Mát vil- Kinari—were settled by Mr. Deedes under Regulation VII. of lages. 1822 and six by Mr. Tyler in 1834 under Regulation IX. of 1833. The principles on which Mr. Deedes assessed were exactly similar to those adopted by him in Mahában. Mr. Tyler's principles of assessment have been already explained. When the revision of the jamas of the talúkas was made in 1844, the settlement of these nine villages was also revised by Mr. Tyler; he increased the revenue in two villages by Rs. 530 and decreased those of two others by Rs. 271, leaving the demand at Rs. 17,607. The expired demand is Rs. 18,018. Rs. 205 has been added for resumed muáfi patches and Rs. 749 for alluvion; Rs. 10 has been reduced for land taken up for a road and Rs. 533 for diluvion.

Tappa Sonai was assessed and reported on by Mr. Deedes in 1831. It then consisted of the two subdivisions of Aira Khera and Sonai. (c.) For tappa Sonai. The only changes which have taken place since have been the addition to Aira Khera of Sherni from Aligarh and of the muáfi estate of Bisauli from Raya.

Aira Khera now contains without its boundaries 21 khálsa and one muáfi estate

* Taraf Inchhraj.	Taraf Bharera.	21* khálsa estates, all except Sherni share in the khera or original village site, and their fields are so intermingled that it was found impossible to have a separate survey of each.
1. Manina Balu. 2. Bhankarpur Basela. 3. Lalpur. 4. Sampat Jogi.	10. Sabli. 11. Bírba. 12. Gaju. 13. Aira. 14. Miar.	
Taraf Ropal.	Tarif Sikam.	
5. Nibgaon. 6. Bhura. 7. Bandu Bulaki. 8. Pihl. 9. Bibauli.	15. Birauna, mahál Radha Kishn. 16. Birauna Khas. 17. Barsun, mahál Saligram. 18. Barsun khas. 19. Gaiyara. 20. Kakrari. 21. Sherni.	

In Sonai there are †11 separate estates with their lands similarly intermingled.

†1. Thok Gyan. 2. " Kamal. 3. " Bindabani. 4. " Sumera. 5. " Saru. 6. Nagla Jangli.	7. Nagla Bari. 8. Bhudri. 9. Milak Kanungoyan. 10. " Bikanu Shah. 11. " Ganga Bashi.	Three of these are " milaks" or resumed muáfi patches. They do not share in the khera or old abadi, like
--	--	--

the other eight which are integral parts of the original village. Mr. Deedes, description of this talúka has been already given.

His settlement expired in 1842-43, but as the tappa was previously reported to be in a very impoverished condition, the Board in 1840 ordered a revision, which was undertaken by Mr. Tyler, and the results reported on June 27th,

1844. He found that, partly from drought and partly from over-assessment, the villages had been so reduced that a decrease in nearly every one was necessary. He divided the villages into two classes, for each of which he had separate rates—bāra, manjha, and barha wet and dry. From his estimated assets he took 70 per cent. as the revenue in zamindari villages and 62 per cent. in biswadari; in the former the 30 per cent. balance went to the zamindar, in the latter 20 per cent. went to the under-proprietor and 18 per cent. to the over-proprietor. The result of his revision was :—

		Former jama. Rs.	Revised jama.		Decrease.	
			Lowest. Rs.	Highest. Rs.	Highest. Rs.	Lowest. Rs.
Mahāls in which no alteration took place	... 9	10,958	10,958	10,958	...	...
Mahāls in which decrease was given	... 24	42,404	37,179	39,029	5,225	3,375
	33	53,362	48,137	49,987	5,225	3,375

The demands of the different settlements have been—

					Rs.
1st settlement	...	...	...	...	55,185
2nd ditto	...	...	...	...	54,730
3rd ditto	...	...	...	...	52,190
Mr. Deedes' settlement	...	...	...	...	53,342
Mr. Tyler's settlement	...	...	...	...	49,987
Expired demand	...	...	...	...	49,988

The difference of Re. 1 is caused by the resumption of a muāfi patch.

Tappa Raya at last settlement consisted of 24 mauzas, of which six (Bisauli, Diwana, Maoli Doshpur, Kherari, Allahpur or Pokhar Hirde, and Saur) are distinct and separate estates; of these six, five are now included in Rāya and one Bisauli in Aira Khara. The remaining 18 are included in the three quarters or tarafs into which Rāya khas was originally divided. Of these 24 villages five now pay no revenue to Government. This tappa was assessed by Mr. Deedes under Regulation VII. of 1822, but in 1840 before his assessment which expired in 1842-43 had fallen in the Board of Revenue had from the impoverished state of the tract found it necessary to order a revision. This was undertaken by Mr. Tyler, who proceeded on the principles already explained for Sonai and Aira Khara. The result of his revision was as follows :—

		Number of villages.	Demand of Mr. Deedes' settlement.	Mr Tyler's revision.	Increase.	Decrease.
			Rs.	Rs.	Rs.	Rs.
Mahāls in which the demand was unchanged	...	11	17,004	17,004	...	...
Mahāls in which the demand was raised	...	2	1,271	1,450	179	...
Mahāls in which the demand was lowered	...	6	7,550	6,600	...	950
Total	...	19	25,825	25,054	179	950

The expiring demand is Rs. 25,017. The change has been caused by the remission of Rs. 37 for land taken up for roads. The demands of the different settlements have been—

					Rs.
1st settlement	...	...	...	...	26,325
2nd ditto	...	...	...	...	25,579
3rd ditto	...	...	...	...	25,825
Mr. Tyler's revision	...	...	...	...	25,054
Expired demand	...	...	...	...	25,017

There remains the expiring settlement of talūkas Ar, Madim, and Sonkh, and (c.) The talūkas and villages received from Murrān. the individual villages of Tehra, Chuhari, and Khandiya, which were assessed by Mr. J. Thornton in 1834.

Ar Laskarpur consists of 11 separate estates—

1. Pabesra.	4. Bilalabad.	7. Bichpuri Polua.	10. Basar Bhikandi.
2. Khelua.	5. Sojanpur Bhonda.	8. Khijuri.	11. Nonera.
3. Gorera.	6. Bansa.	9. Nigora.	

Madim of 5—

Nauranga, Roshanga, Jugatya, Bhojua, Chikara.

Sonkh of 13—

1. Sonkh.	4. Bhit Bahari.	7. Nagla Hira	10. Nagla Talvarhi.
2. Nagla 'Tulsi.	5. Nagla Torar.	8. " Achta.	11. " Hari.
3. " Karan.	6. " Mursen ya.	9. " Arjun.	12. " Thana.
			13. " Dhanna.

In Ar Laskarpur and Sonkh Mr. Thornton admitted the proprietary communities to engagement in 1834 under Regulation IX. of 1833. After their transfer to Muttra, however, in 1840 the talukas were found to be in a very impoverished condition, and a resettlement was ordered which was carried out by Mr. Tyler. He excluded the under-proprietors for their wilful default and incapacity admitting Rája Tikam Singh unconditionally as farmer for 10 years. This arrangement was disallowed by G. O. No. 4499 of October 12th, 1844, and he was directed to readmit the biswadars. The impoverished condition of this tract was attributed to consecutive bad seasons commencing from the drought of 1837-38, the original poverty of the communities, and their inexperience in revenue management combined with disputed rights which involved them in litigation absorbing their resources and diverting their attention. In neither was any permanent reduction considered necessary, the case being met by temporary reductions and a progressive assessment that gradually reverted to the original demand. In Ar Laskarpur the demands were fixed as follows :—

			New demand.			Deduction.		
			Rs.	a.	p.	Rs.	a.	p.
1843-44 (kharif only)	...	...	3,596	8	0	1,306	0	0
1844-45	...	...	7,438	8	0	2,331	2	0
1845-46	...	...	8,210	0	0	1,459	10	0
1846-47	...	...	8,915	8	0	754	2	0
1847-48	...	...	9,425	5	0	217	5	0
1848-49 to end of settlement	...	...	9,669	10	0	...		

Subsequently to settlement the under-proprietors of four villages (Pabesra, Sojanpur-Bhonda, Khijuri, and Nonera) relinquished their rights and the Rája was admitted as full proprietor from 1251 fasli at an increase of Rs. 415-6. In Basar Bhikandi the mukaddams were sold up for arrears and the village purchased by Government prior to Mr. Tyler's revision, and after that date the Rája was admitted to engagement as full zamindar for Rs. 656, a rise of Rs. 75 on the former demand. This raised the jama of the taluka to Rs. 10,160. The expired demand shows an increase of Rs. 23 caused by the resumption of certain muafi patches. In Sonkh the temporary reduction given was as follows :—

			New demand.			Decrease.		
			Rs.	a.	p.	Rs.	a.	p.
1843-44 (kharif only)	...	...	2,067	0	0	850	0	0
1844-45	...	...	4,397	0	0	1,437	0	0
1845-46	...	...	4,293	8	0	910	8	0
1846-47	...	...	5,405	8	0	428	8	0
1847-48	...	...	5,729	0	0	105	0	0
1848-49 to the end of settlement	...	...	5,834	0	0	...		

At this time Nagla Karan was held direct by Government, as the under-proprietor had absconded. The Rája was afterwards admitted as full proprietor at a demand of Rs. 242, a rise of Rs. 28 on the old demand; this raised the assessment of the last settlement to Rs. 5,862. The expiring demand is Rs. 5,877, Rs. 15 having been added for resumed muafi patches. Nagla Dhana has also during the settlement been acquired in full proprietary right by the Rája.

In Madim, Mr. Thornton found under-proprietary rights in only two villages, Chikara and Raushanga. In these he admitted the mukaddams to engagement at a jama of Rs. 1,943, and in the other estates the Rája and his nephew as full proprietors at a revenue of Rs. 2,149. This talúka was found on revision by Mr. Tyler to be in a worse condition than any of the others owing to the brackish character of the water which had entirely failed to make the crops germinate in the years of drought that had preceeded the re-settlement. He reduced the assessment of the biswadari estates to Rs. 1,605 and the zamindari to Rs. 1,885, a total of Rs. 3,490. The expiring demand is Rs. 3,494, Rs. 4 having been added for resumed muáfis. In Chuhari and Khandiya the mukaddams were also engaged with by Mr. Thornton, *hak-malikana* being given to the Rája. The different jamas of both estates were:—

						Rs.
1st settlement	...	...	...	...	...	1,307
2nd ditto	...	...	...	...	...	1,343
3rd ditto	...	...	...	...	...	1,091
Last year of expired settlement	...	...	...	...	...	1,092

One rupee has been added for a resumed muáfi grant. Tehra up to last settlement was a part of talúka Joar. Mr. Thornton admitted the mukaddams to engagement at a jama of Rs. 1,224. They shortly afterwards fell into arrears and the village was farmed to one Daljit Singh, who held decrees against them. To avoid being sold up the mukaddams made over their rights to the talúkdar who was then engaged with at a jama of Rs. 1,391, the present demand.

General summary.

Summing up for the whole tahsil we have:—

		Demand of last settlement.	Demand of last year of late settlement.
		Rs.	Rs.
1. Old Mahában	...	1,70,014	1,73,573
2. Mát villages	...	17,607	18,018
3. Tappa Sonai	...	49,987	49,988
4. „ Ráya	...	25,054	25,017
5. Ar Laskarpur	...	10,160	10,183
6. Sonkh	...	5,862	5,877
7. Madim	...	3,490	3,494
8. Chuhari and Khandiya	...	1,091	1,092
9. Tehra	...	1,391	1,391
Total		2,84,656	2,85,633

Comparison of past and present area.

	Total area.	NOT ASSESSABLE.					ASSESSABLE.						
		Muft.	Site.	Occupied by wa- ter.	Barren waste.	Total.	Groves.	Culturable waste.	Fallow.	Cultivated.			Total assessable.
										Irrigated.	Dry.	Total.	
Acres.	15,259	2,003	1,735	9,819	28,809	334	10,261	3,924	57,380	50,543	107,923	131,543	
Revision of records in 1851-52.	150,351	15,259	2,003	1,735	9,819	28,809	334	10,261	3,924	57,380	50,543	107,923	131,543
Present	152,083	15,399	1,761	895	8,318	26,373	873	9,629	518	92,051	22,739	114,790	125,810

Unfortunately complete areas for the last settlement cannot be found. Excluding three talúkas of Ar Laskarpur, Sonkh, and Madim, and the four villages of Sherni, Tehra, Chuhari and Khandiya transferred from Aligarh, I have been able to discover for the remainder of the pargana the area under cultivation at last settlement. It was then 88,250 acres; at present 103,890 acres are cultivated within the same area, thus giving an increase of 15,640 acres, or 17·73 per cent. This may very fairly be taken as an index of the increase over the whole pargana since 1831-32. The area of



culturable waste by the present returns amounts to 10,147 acres, of which a large proportion belongs to those villages bordering on the Jumna, where the soil is miserably poor.

The system of inspection method of classifying soils and the process adopted for determination of soil rates have been already described. Here  
 System of inspection. rates, with rates used in the assessment. as in the other parganas rents are paid in lump sums on entire holdings, field rates being unknown. The selected area, over which my inductions regarding rates in the uplands extended, embraced 43,193 acres, or 54.26 per cent. of the whole area occupied by tenants.

Taking all instances where the holding were composed entirely of one particular soil and striking averages, we get the following result :—

	No. of examples.	Area.	Rent.	Rate.
		Acres.	Rs. a. p.	Rs. a. p.
Gauhan superior ...	58	71	1,084 0 0	15 4 3
Ditto ordinary ...	69	82	915 0 0	11 2 6
Ditto poor ...	...	...	...	...
Manjha superior ...	43	123	1,268 0 0	10 4 11
Ditto ordinary ...	369	625	4,985 0 0	7 14 4
Ditto poor ...	18	30	223 0 0	7 6 11
Irrigated barha I, superior ...	205	684	4,953 0 0	7 3 10
Ditto ditto ordinary ...	1,147	4,363	27,549 0 0	6 5 0
Ditto ditto below average ...	603	2,478	13,531 0 0	5 7 4
Ditto ditto of Rāya ...	314	1,305	8,232 0 0	6 12 0
Dry barha I, good ...	146	317	1,764 0 0	5 9 0
Ditto below average ...	16	37	200 0 0	5 6 6
Irrigated barha II. ...	145	333	1,593 0 0	4 12 6
Dry barha II. ...	334	991	3,654 0 0	3 11 0
Irrigated puth ...	7	15	51 0 0	3 6 4
Dry puth fair ...	15	42	108 0 0	2 8 7
Ditto bad ...	318	960	1,929 0 0	2 0 2
Home tarāi ...	10	51	84 0 0	7 10 2
Irrigated barha tarāi ...	14	28	184 0 0	6 9 1

Modifying these rates by my knowledge of the capability of soils I settled on rates which did not greatly differ from those above given. Multiplying these by the soils of the test area and comparing it with the rental actually realized, we have—

	Acres.	Rs. a. p.
Gauhan superior ...	325 × 14 =	4,550 0 0
Ditto ordinary ...	1,183 × 10½ =	12,421 8 0
Ditto poor ...	232 × 8 =	1,856 0 0
Manjha superior ...	383 × 10 =	3,830 0 0
Ditto ordinary ...	3,811 × 8 =	30,488 0 0
Ditto poor ...	482 × 7 =	3,374 0 0
Irrigated barha I, superior ...	3,302 × 7 =	23,114 0 0
Ditto ditto ordinary ...	10,181 × 6 =	61,086 0 0
Ditto ditto below average ...	7,887 × 5½ =	40,420 14 0
Ditto ditto of Rāya ...	3,010 × 6½ =	19,565 0 0
Dry barha I, good ...	1,090 × 5 =	5,450 0 0
Ditto ditto below average ...	762 × 4 =	3,048 0 0
Irrigated barha II. ...	2,675 × 4½ =	12,037 8 0
Dry ditto ...	4,076 × 3½ =	14,266 0 0
Irrigated puth ...	250 × 3 =	750 0 0
Dry puth fair ...	519 × 2½ =	1,297 12 0
Ditto bad ...	2,538 × 1½ =	4,441 8 0
Home tarāi ...	50 × 8 =	400 0 0
Irrigated barha tarāi ...	356 × 6 =	2,136 0 0
Dry barha tarāi ...	81 × 4½ =	364 8 0
	43,193	2,44,766 10 0

Rental actually realized, Rs. 2,39,460 15 6

The Jumna khádar was inspected two years in succession, 1281 and 1282 fasli corresponding to 1874 and 1875. The areas under cultivation during these two years were 1,828 and 1,746 acres respectively. Taking the returns for 1282 fasli as being the most recent, I found that the whole area under the plough could be sub-divided into three classes of soil for assessment purposes. The first and best class comprised those lands in which on account of richness of soil and general freedom from inundation double crops and sugarcane were the chief products. To these were also added the superior melon and cucumber fields near large towns, for which very high rates are paid. In the second class were included the inferior melon and cucumber plots and those average khádar fields in which only the ordinary rabi crops are produced, whilst to the third class were delegated the worst fields of all, where the soil is very sandy or impregnated with reh, or where on account of close proximity to the river the crops are precarious. The areas of each class under cultivation in 1875 were as follows :—

Acres.				Acres.			
Khálsa	Class	I.	635	Muáfi	Class	I.	354
	"	II.	509		"	II.	112
	"	III.	118		"	III.	18
<hr/>				<hr/>			
1,262				484			
<hr/>				<hr/>			

In class I. the prevailing rate was Rs. 5 per bigha or Rs. 8-12-6 per acre. I assumed Rs. 8-12-0 per acre for assessment purposes. In class II. the rates varied from Rs. 2-8-0 to Rs. 3-8-0 per bigha—say Rs. 5 per acre all round. For the third class Rs. 3-8-0 per acre. The rate proposed for dry barha II. in the bángar portion is the fairest I could take.

Estimated rentals based  
on rates.

Applying the rates to soil areas of the tahsíl, we have—

*I.—Bángar khálsa area.*

				Arca.			
				Acres.	Rs.	Rs.	a.
Gauhán superior	...	...	...	795	× 14 =	11,130	0
Ditto ordinary	...	...	...	4,004	× 10½ =	42,042	0
Ditto poor	...	...	...	839	× 8 =	6,712	0
Manjha superior	...	...	...	972	× 10 =	9,720	0
Ditto ordinary	...	...	...	11,806	× 8 =	94,448	0
Ditto poor	...	...	...	1,980	× 7 =	13,860	0
Irrigated barha I, superior	...	...	...	9,781	× 7 =	68,467	0
Ditto, ordinary	...	...	...	24,399	× 6 =	1,46,394	0
Ditto, of Ráya	...	...	...	5,524	× 6½ =	35,906	0
Ditto, below average	...	...	...	23,581	× 5½ =	1,30,852	10
Dry ditto	...	...	...	3,201	× 4 =	12,804	0
Ditto, good	...	...	...	3,612	× 5 =	18,060	0
Irrigated barha II.	...	...	...	6,815	× 4½ =	30,667	8
Dry ditto	...	...	...	7,813	× 3½ =	27,345	8
Irrigated puth	...	...	...	648	× 3 =	1,944	0
Dry puth, fair	...	...	...	1,908	× 2½ =	4,281	12
Ditto, bad	...	...	...	4,598	× 1½ =	8,046	8
Home tarái	...	...	...	170	× 8 =	1,360	0
Irrigated barha tarái	...	...	...	759	× 6 =	4,554	0
Dry ditto	...	...	...	328	× 4½ =	1,476	0
Total				1,13,528		6,60,070	14

*Khádar khálsa.*

Class	I.	...	...	...	635	× 8½ =	5,556	4
"	II.	...	...	...	509	× 5 =	2,545	0
"	III.	...	...	...	118	× 3½ =	413	0
Total				...	1,262		8,514	4

*Bāngar muhfi area.*

				Area.		
				Acre.	Rs.	Rs. a.
Gauhān superior	...	...	...	57	X 14 =	798 0
Ditto ordinary	...	...	...	428	X 10½ =	4,494 0
Ditto poor	...	...	...	176	X 8 =	1,408 0
Manjha superior	...	...	...	132	X 10 =	1,320 0
Ditto ordinary	...	...	...	1,162	X 8 =	9,296 0
Ditto poor	...	...	...	298	X 7 =	2,086 0
Irrigated barha I, superior	...	...	...	321	X 7 =	2,247 0
Ditto, ordinary	...	...	...	1,987	X 6 =	11,922 0
Ditto of Rāya	...	...	...	922	X 6½ =	5,993 0
Ditto, below average	...	...	...	1,441	X 5½ =	7,385 2
Dry ditto	...	...	...	165	X 4 =	660 0
Ditto ditto, good	...	...	...	404	X 5 =	2,020 0
Irrigated barha II.	...	...	...	494	X 4½ =	2,223 0
Dry ditto	...	...	...	1,436	X 3½ =	5,026 0
Irrigated puth	...	...	...	8	X 3 =	24 0
Dry puth, fair	...	...	...	384	X 2½ =	864 0
Ditto bad	...	...	...	1,083	X 1½ =	1,624 4
Home tarāf	...	...	...	22	X 8 =	176 0
Irrigated barha tarāf	...	...	...	258	X 6 =	1,548 0
Dry ditto	...	...	...	24	X 4½ =	108 0
Total	...	...	...	11,202		61,493 6

*Khādar muhfi area.*

Class I.	...	...	...	354	X 8½ =	3,097 8
" II.	...	...	...	112	X 5 =	560 0
" III.	...	...	...	18	X 3½ =	63 0
				484	X =	3,720 8

The estimated rental of the whole khālsa, both bāngar and khādar, amounts to Rs 6,68,585-2-0. This at half assets points to a jama of Rs. 3,34,292. In assessing, however, I had to allow for the prevalence of baisuri and bad water in some tracts, the great subdivision of property in many villages, and the heavy malikana payable by the under-proprietors of some villages to the talūkdār. My rates were sanctioned by the Board of Revenue in their letter No. 421., dated 15th June, 1876, to the address of the Commissioner of the Agra division. The declared assessments were :—

				Rs.
Bāngar	...	...	...	3,14,123
Khādar	...	...	...	2,894

After revision of the statements by the Board of Revenue the demand from the tahsīl became—

				Rs.
Bāngar	...	...	...	3,11,393
Khādar	...	...	...	2,894
Total	...	...	...	3,14,287

The cesses on the revenue-free area amount to—

				Rs.
Bāngar	...	...	...	2,935-4
Khādar	...	...	...	159-0
Total	...	...	...	3,094-4

The expired demand was Rs. 2,88,633, the increase of the new settlement is thus Rs. 25,654, or close on 9 per cent.

Financial results.

The average recorded rentals in the patwáris' papers for 31 years before the conclusion of the settlement was Rs. 4,04,436, and the interpreted rentals Rs. 4,42,426. Similarly for the last year of the old settlement the figures were Rs. 4,80,666 and Rs. 5,25,338 respectively. This is for both the revenue-free and the revenue-paying area ; taking the latter alone, the recorded rental at the preparation of rough records was Rs. 4,39,383, and the interpreted rental Rs. 5,23,077. The following statement shows the rent after-completion of enhancements by the settlement courts for the revenue-paying area :—

Description.	Area, in acres.	Rent.	Rate.
		Rs.	Rs. a. p.
Sir ... ..	28,082	82,644	2 15 1
Ex-proprietary tenants ... ..	109	580	5 5 2
Land held by resident tenants with occupancy rights ...	39,173	185,559	4 11 9
Ditto by non-resident tenants with occupancy rights ...	9,848	41,538	4 3 6
Ditto by resident tenants-at-will ... ..	27,271	185,770	5 11 5
Ditto by non-resident tenants-at-will ... ..	8,567	43,901	5 2 0
Rent-free land granted by zamíndárs ... ..	1,419	...	...
Cultivated gardens, &c. ... ..	1,244	345	0 4 5
Total ... ..	115,713	510,297	4 6 7

A similar statement for the revenue-free area is here given :—

Description.	Area in acres.	Rent.	Rate.
		Rs.	Rs. a. p.
Sir ... ..	2,016	5,468	2 10 1
Ex-proprietary tenants ... ..	...	...	...
Land held by resident tenants with occupancy rights ...	4,580	21,618	4 11 6
Ditto by non-resident tenants with occupancy rights ...	998	4,245	4 4 0
Ditto by resident tenants-at-will ... ..	2,535	11,680	4 9 8
Ditto by non-resident tenants-at-will ... ..	494	1,738	3 8 3
Rent-free land granted by zamíndárs ... ..	331	...	...
Cultivated gardens, &c. ... ..	167	28	0 2 5
Total ... ..	11,181	44,777	4 0 1

The recorded rental of the revenue-paying area has, therefore, risen to Rs. 5,10,297, and the interpreted rental to Rs. 5,81,647, which is about Rs. 46,800 under double of the new jama. Siwai items have not, however, been included in the calculation, nor has concealment of assets, which is just as common here as in the other parganas, been allowed for.

M. A. McCONAGHEY.

General statement of Tahsil Mahabban.

STATISTICS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Number.	Name of village.	NOT ASSESSABLE.										ASSESSABLE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		Highest revenue of 1st settlement.					Highest revenue of 2nd settlement.					Highest revenue of 3rd settlement.					Jama of last settlement.					Average of last five years.					Present revenue.					Total area in acres.					Revenue-free.					Site.					Occupied by water.					Barren waste.					Total.					Groves.					Culturable land uncultivated.					Cultivated.					Total assessable.					Incidence of present revenue on total area per acre.					Incidence of present revenue on total assessable area (cultivated and culturable) per acre.					Incidence of present revenue on total cultivated area per acre.					Ra. a. p.					Ra. a. p.					Ra. a. p.					Ra. a. p.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		3.					4.					5.					6.					7.					8.					9.					10.					11.					12.					13.					14.					15.					16.					17.					18.					19.					20.					21.					22.					23.					24.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.					Rs.		

General statement of Tahsil Mahdian--(continued).

STATISTICS.																															
Number.	Name of village.	Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Jama of last settlement.	Average of last five years.	Present revenue.	NOT ASSESSABLE.										ASSESSABLE.							Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and culturable) per acre.	Incidence of present revenue on total cultivated area per acre.				
								Total area in acres.	Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Old waste.	Lately thrown out of cultivation.	Cultivated.		Total cultivated.	Total assessable.											
																	Culturable land uncultivated.	Irrigated.													
																					Not irrigated.	Total cultivated.									
TALÚKA AB LASHKARPUR.																															
22	Banas ...	...	...	...	1,539	1,540	1,700	784	3	16	8	20	47	...	23	...	475	239	714	737	2	2	7	2	4	10	2	6	1		
23	Basar Bhikandi ...	...	...	...	656	650	800	397	...	5	4	2	18	...	8	...	260	111	371	379	2	2	3	2	3	10	2	4	8		
24	Bil Aliyabad ...	...	...	...	481	481	620	338	...	3	5	2	12	...	3	...	200	33	233	226	2	9	8	2	11	10	2	12	6		
25	Bichpuri Polua ...	...	...	...	543	543	620	368	...	2	3	2	5	12	...	6	...	318	32	250	255	2	5	0	2	6	9	2	7	8	
26	Gurera ...	...	...	...	1,318	1,318	1,560	738	...	6	14	6	32	58	6	55	4	450	165	615	680	2	1	10	2	4	8	2	8	7	
27	Khajuri ...	...	...	...	593	615	650	374	...	...	2	1	4	7	...	14	...	180	73	253	267	2	5	11	2	6	11	2	9	1	
28	Khelua ...	...	...	...	566	566	740	328	...	...	5	2	12	19	1	20	...	340	48	288	309	2	9	4	1	2	6	4	2	9	1
29	Naunera ...	...	...	...	768	768	970	376	...	1	7	3	6	17	1	5	...	320	38	352	359	2	3	4	2	11	3	2	12	0	
30	Nigora ...	...	...	...	1,411	1,411	1,660	788	...	15	11	8	37	61	...	22	...	608	197	705	727	2	1	9	2	4	6	5	8	5	
31	Pabera ...	...	...	...	1,839	1,839	1,950	876	...	8	12	11	14	45	32	108	...	527	174	701	831	2	3	7	2	5	6	2	12	5	
32	Sujanpur Bhondela ...	...	...	...	446	446	550	231	...	2	...	...	7	9	1	12	...	57	112	209	223	2	6	1	2	7	8	2	10	2	
		...	...	...	10,160	10,183	11,820	5,298	40	80	47	138	305	31	376	4	3,475	1,307	4,682	4,993	2	3	8	2	5	10	2	8	5		
TALÚKA MADIM.																															
23	Bhojua ...	...	...	...	585	586	630	256	...	1	5	2	6	14	...	11	...	165	66	231	243	2	7	4	2	9	8	2	11	7	
34	Chikara ...	...	...	...	830	830	1,000	428	...	3	3	2	10	18	1	13	...	353	40	393	407	2	5	8	2	7	4	2	8	8	
35	Jutiya ...	...	...	...	400	400	500	254	...	...	2	5	9	...	...	11	2	57	175	282	245	1	15	6	2	0	8	2	6	6	
26	Nauranga ...	...	...	...	600	900	1,100	452	...	5	7	3	9	24	1	6	1	844	76	420	428	2	6	11	2	9	1	2	9	11	
37	Raubhanga...	...	...	...	775	778	900	380	...	1	6	3	9	19	6	7	...	313	35	348	361	2	5	11	2	7	10	2	9	5	
		...	...	...	3,490	3,494	4,130	1,767	10	23	12	29	84	8	48	3	1,232	392	1,624	1,683	2	5	5	2	5	5	2	7	2	8	8

TALÚKA BAYA.														
38 Achru Lodhiana	2,300	2,800	2,800	3,850	3,350	3,500	1,187	...	...	...	...	...	...	...
39 Bana	1,500	1,500	1,080	1,154	1,152	1,100	309	...	...	...	...	...	...	...
40 Bhims	3,400	3,400	1,033	950	946	1,080	294	...	...	...	...	...	...	...
41 Chura Hand	450	800	900	850	850	940	287	...	...	...	...	...	...	...
42 Dhaku	1,180	1,150	1,300	1,000	998	1,300	550	...	...	...	...	...	...	...
43 Ganga	1,900	1,900	1,800	1,630	1,648	1,800	510	...	...	...	...	...	...	...
44 Kherali	1,125	1,125	1,200	1,800	1,190	1,320	392	...	...	...	...	...	...	...
45 Koli	...	...	1,033	850	848	940	298	...	...	...	...	...	...	...
46 Malhe	200	300	250	400	399	450	147	...	...	...	...	...	...	...
47 Nagal	3,000	3,000	2,550	2,550	2,645	3,000	902	...	...	...	...	...	...	...
48 Narwa Hansi	1,300	1,300	1,300	1,300	1,300	1,700	839	...	...	...	...	...	...	...
49 Pindari	3,400	3,000	2,900	2,100	2,100	2,350	853	...	...	...	...	...	...	...
50 Pokhar Hirde (alias)	800	500	645	600	600	750	378	...	...	...	...	...	...	...
51 Saras	1,400	1,400	1,100	1,050	1,050	1,100	347	...	...	...	...	...	...	...
52 Saur	400	400	475	1,050	1,050	1,300	755	...	...	...	...	...	...	...
53 Selra	1,600	1,100	1,300	1,350	1,328	1,510	514	...	...	...	...	...	...	...
54 Suraj	1,400	1,400	1,200	1,300	1,298	1,460	532	...	...	...	...	...	...	...
55 Tarwa	Included in Bhim,	...	1,038	850	849	1,000	329	...	...	...	...	...	...	...
56 Thana Amar Singh	1,400	1,400	1,700	1,600	1,600	2,100	849	...	...	...	...	...	...	...
57 Bhudri	...	...	...	...	...	...	...	...	...	...	...	...	...	...
58 Milak Bikann Shah	...	...	...	...	...	...	...	...	...	...	...	...	...	...
59 Ditto Ganga Bashi	...	...	...	...	...	...	...	...	...	...	...	...	...	...
60 Ditto Kunungoyau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61 Nagla Bari	...	...	...	...	...	...	...	...	...	...	...	...	...	...
62 Ditto Jaugli	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63 Thok Bindrabani	...	...	...	...	...	...	...	...	...	...	...	...	...	...
64 Ditto Gyan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
65 Ditto Kamal	...	...	...	...	...	...	...	...	...	...	...	...	...	...
66 Ditto Saru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
67 Ditto Sumera	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	6,885	6,815	7,170	6,001	5,958	6,630	2,275	1	40	9	74	124	25	...
TALÚKA SONKH.														
68 Nagla Arjun	Included in Sonkh	...	...	639	637	640	364	...	...	...	...	...	...	...
69 Ditto Bhit Behri	Ditto	...	...	466	466	480	247	...	...	...	...	...	...	...
70 Ditto Dhanus	Ditto	...	...	581	583	630	309	...	...	...	...	...	...	...
71 Ditto Hari	Ditto	...	...	744	745	800	412	...	...	...	...	...	...	...

General Statement of Tahsil Mahdhan—(continued).

STATISTICS.																								
Number.	Name of village.	3.	4.	5.	6.	7.	8.	NOT ASSESSABLE.							ASSESSABLE.							22.	23.	24.
								Total area in acres.	Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable land uncultivated.		Cultivated.			Total assessable.				
															Old waste.	Lately thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.					
TALUKA SONKH—(concluded).																								
72	Nagla Hira	...	Included in Sonkh	...	387	367	48	355	2	3	1	5	11	...	13	...	156	75	231	243	1 14 1	1 15 6	2 1 3	
73	Ditto Keran	...	Ditto ditto	...	242	242	260	111	3	...	...	3	6	...	6	...	88	11	99	103	2 5 6	2 7 7	3 10 0	
74	Ditto Muralniya	...	Ditto ditto	...	162	162	170	71	1	2	...	1	4	...	2	...	58	7	65	67	2 6 4	2 8 7	3 9 10	
75	Ditto Tulgarhi	...	Ditto ditto	...	1,056	1,056	1,210	560	3	6	3	13	25	...	11	...	511	13	524	536	2 3 9	2 5 5	2 6 2	
76	Ditto Thana	...	Ditto ditto	...	285	285	320	158	2	2	...	4	8	...	1	...	113	36	149	150	2 0 6	2 2 3	2 3 5	
77	Ditto Tadar	...	Ditto ditto	...	526	526	500	331	3	4	1	26	34	...	32	...	177	68	265	297	1 14 6	1 15 9	2 3 8	
78	Ditto Tulshi	...	Ditto ditto	...	348	351	420	210	2	3	1	6	12	...	7	...	152	29	171	192	2 0 0	2 1 11	2 3 2	
79	Ditto Uchta	...	Ditto ditto	...	283	283	320	166	3	5	...	2	10	...	8	...	146	3	148	156	1 14 10	2 0 10	2 3 2	
80	Sonkh khas	...	Jagir Raja Bhagwant Singh.	...	163	164	200	96	...	14	3	2	19	...	7	...	49	21	70	77	2 1 4	2 9 7	2 13 9	
Total		...	...	...	5,862	5,877	6,550	3,290	28	50	14	93	185	6	130	49	2,303	717	2,920	3,105	1 15 7	2 1 9	2 3 11	
REMAINING VILLAGE.																								
81	Abdulbapur bangar.	...	550	550	559	1,004	510	323	36	6	...	31	73	23	8	...	94	125	219	250	1 11 3	2 3 2	2 8 2	
82	Ditto	...	...	...	...	...	700	236	...	...	...	32	32	...	6	...	...	198	198	204	2 15 6	3 6 11	3 8 7	
83	khadar.	...	4,000	4,000	5,975	5,875	6,600	3,400	...	43	19	163	225	13	353	138	1,993	688	2,681	3,175	1 15 1	2 1 3	2 7 5	
84	Akos bangar	...	1,400	1,400	1,221	1,221	1,050	197	...	...	...	166	166	...	...	...	...	31	41	41	0 3 8	0 15 8	0 15 8	
85	Ditto khadar	...	1,400	1,400	1,221	1,221	1,050	284	...	5	1	5	71	6	...	...	317	44	261	273	3 11 3	3 13 6	4 0 4	
86	Allpur	...	...	...	...	993	1,030	439	...	5	1	5	71	6	...	...	317	44	261	273	3 11 3	3 13 6	4 0 4	
87	Amirpur	...	Included in Chauli	...	...	993	1,030	439	...	5	1	5	71	6	...	...	317	44	261	273	3 11 3	3 13 6	4 0 4	



[illegible]

General Statement of Tahsil Mahabban—(continued).

STATISTICS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Number.	Name of village.	8.	Present revenue.	NOT ASSESSABLE.										ASSESSABLE.										22.	Incidence of present revenue on total area per acre.	23.	Incidence of present revenue on total assessable area (cultivated and culturable) per acre.	24.	Incidence of present revenue on total cultivated area per acre.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
				Highest revenue of 1st settlement-	3.	Highest revenue of 2nd settlement.	4.	Highest revenue of 3rd settlement.	5.	Jama of last settlement.	6.	Average of last five years.	7.	Total area in acres.	9.	Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	15.	Groves.	Culturable land uncultivated.							Cultivated.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
																							Old waste.							Late thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
																																		10.	11.	12.	13.	14.	16.	17.	18.	19.	20.	21.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
REMAINING VILLAGES.—(continued)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
125	Jamalpur	140	140	150	150	150	150	230	...	...	1	7	8	...	2	...	103	23	125	137	1 10 1	1 11 9	1 12 2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

157	Kishanpur	335	350	375	350	149	7	2	6	15	3	6	...	110	15	125	184	2	5	7	2	9	9	2	12	0	
158	Lohban	3,000	3,100	3,000	3,700	1,331	25	6	30	87	21	...	39	...	802	1,184	234	2	3	2	15	7	3	2	0		
159	Madanpur	330	477	600	850	848	3	2	...	...	...	...	15	...	311	332	237	2	7	1	8	4	3	10	3		
160	Mahan khas bangar	3,307	2,700	3,955	4,873	4,678	44	100	9	563	716	144	339	36	1,325	2,950	3,459	1	2	4	1	6	2	1	0	0	
161	Ditto	...	...	...	...	317	...	...	...	205	...	...	38	...	84	84	112	0	10	1	12	7	2	6	1		
162	Mahpai bangar	70	470	405	250	290	...	...	...	...	...	...	107	1	...	172	240	0	13	9	0	14	3	1	7		
163	Ditto khadar	...	...	...	160	416	...	...	...	...	...	...	272	...	...	64	356	0	5	9	0	7	2	3	5		
164	Majhadpur	10	100	110	150	86	...	...	...	...	...	...	4	...	...	78	85	1	11	1	12	3	2	3	6		
165	Manoharpur	85	950	1,200	1,500	689	...	...	...	...	...	...	3	...	...	607	656	2	10	3	4	7	2	7	6		
166	Manohara khas	...	...	...	2,000	946	...	...	...	...	...	...	83	1	...	809	936	2	1	10	2	2	6	2	3		
167	Ditto Gulal	1,50	1,600	2,000	2,70	129	...	...	...	...	...	...	5	...	...	121	136	2	1	0	2	2	6	2	3		
168	Mohanpur	250	375	20	280	109	...	...	...	...	...	...	4	...	...	98	102	2	6	3	2	8	9	2	10	5	
169	Mubarkpur (khalas)	250	...	...	70	60	...	...	...	...	...	...	...	...	...	59	59	1	3	8	1	3	0	1	3	0	
170	Murhidpur mahal Hardeo bangar.	...	...	...	50	7	...	...	...	...	...	...	1	2	18	47	50	0	11	1	1	0	0	1	0	11	
171	Ditto khadar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	7	1	4	0	1	6	10	1	10	8	
172	Ditto Kashi Bangar,	195	300	150	50	74	...	...	...	...	...	...	2	4	11	45	52	0	10	10	0	15	8	1	1	4	
173	Ditto ditto khadar,	...	...	...	...	7	...	...	...	...	...	...	...	...	...	5	5	1	6	10	2	0	0	3	0	0	
174	Ditto Kishna bangar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23	48	0	13	10	1	0	10	1	4	0	
175	Ditto ditto khadar,	...	...	...	...	12	...	...	...	...	...	...	...	...	...	11	12	0	13	4	0	13	4	0	14	1	
176	Nabipur bangar	50	500	550	580	741	...	...	...	...	...	...	145	...	225	428	576	0	13	6	1	0	1	1	5	8	
177	Ditto khadar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
178	Nagla Akon bangar	651	1,250	1,300	1,100	1,011	...	...	...	...	...	...	352	38	106	553	945	1	1	5	1	2	8	1	15	8	
179	Ditto khadar	...	...	...	...	337	...	...	...	...	...	...	43	...	4	123	166	0	9	6	1	3	4	1	10	0	
180	Ditto Azam bangar	545	700	600	550	571	...	...	...	...	...	...	85	4	208	438	526	0	15	4	7	0	9	1	4	1	
181	Ditto khadar	Included in bangar	...	...	150	35	...	...	...	...	...	...	69	1	52	87	167	0	6	9	0	15	4	1	1	7	
182	Nagla Bali mahal Ann pa.	...	...	...	541-15	582	...	...	...	...	...	...	45	...	171	207	282	2	0	11	2	4	10	2	12	11	
183	Nagla Bali mahal Jiwa ram.	1,200	1,450	1,525	950	39	...	...	...	...	...	...	49	...	214	275	325	2	6	6	2	14	9	3	7	4	
184	Nagla Bali mahal Radhi Kishan.	...	...	...	120	57	...	...	...	...	...	...	10	...	35	39	49	2	1	8	2	7	2	3	1	3	
185	Nagla Birbal mahal Asa ram.	...	...	...	230	97	...	...	...	...	...	...	1	...	78	92	94	2	5	10	2	7	2	2	6	0	
186	Nagla Birbal mahal Hardeo.	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	
187	Nagla Bharu	2,400	2,400	2,400	2,900	1,467	...	...	...	...	...	...	106	3	1,164	1,308	1,418	1	15	8	2	0	8	2	3	6	
188	Ditto Girhar	600	740	1,010	1,20	7	...	...	...	...	...	...	69	...	478	510	599	1	11	2	0	8	2	5	2	0	
189	Ditto Gakhranli	950	1,400	2,000	2,600	80	...	...	...	...	...	...	6	1	752	769	795	3	2	4	3	4	4	3	6	1	
190	Ditto Mir Bulaki	Mund.	...	...	...	12	...	...	...	...	...	...	...	...	...	119	193	9	9	3	11	2	3	1	2	0	
191	Narhaul Ghas bangar	1,800	1,700	1,700	1,60	825	...	...	...	...	...	...	150	3	513	690	786	2	0	2	9	1	9	2	10	2	
192	Ditto	1,000	1,200	1,451	1,250	474	...	...	...	...	...	...	9	...	19	25	34	0	8	1	1	2	10	1	9	7	
193	Narhaul Zunnardar,	300	225	225	221	95	...	...	...	...	...	...	30	...	393	408	444	2	9	9	2	13	0	3	1	3	
194	Nasirpur Gondia,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	89	91	2	6	5	2	0	2	3	14	3	
195	Nora mahal bi. bangar,	3,400	5,000	4,501	237	24	...	...	...	...	...	...	57	...	71	148	266	0	15	4	1	2	8	1	9	11	
196	Ditto 2 ditto	...	...	...	2089-2	1,691	...	...	...	...	...	...	212	35	601	1,236	1,457	1	3	10	1	6	7	1	1	1	2

## General Statement of Tahsil Mahābān -- (continued).

STATISTICS.																																				
Name of village.		NOT ASSESSABLE.										ASSESSABLE.																								
		Revenue free.					Site.					Occupied by water.					Barren waste.					Total.					Grove.					Cultivable land uncultivated.				
																																Cultivated.				
Number.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Incidence of present revenue on total assessable area (cultivated and uncultivable) per acre.	Ra. a. p.	Ra. a. p.	Ra. a. p.										
																											Incidence of present revenue on total area per acre.									
REMAINING VILLAGES - (concluded)																																				
197	Nera mahal 9 biswas khadar.	...	...	...	...	...	40	46	...	...	2	1	3	...	12	1	...	30	30	43	0 13 11	0 14 10	1 5 4	Incidence of present revenue on total cultivated area per acre.	Ra. a. p.	Ra. a. p.	Ra. a. p.									
198	Ditto 10 biswas bangar.	...	...	...	...	...	2,320	1,431	...	19	3	53	76	11	346	38	399	552	951	1,346	1 9 0	1 10 4	2 5 4													
199	Ditto 10 biswas khadar.	...	...	...	...	...	20	152	...	...	...	74	74	...	51	5	...	22	22	78	0 2 1	0 4 1	0 14 6													
200	Pachawar ...	9,500	9,500	9,500	9,500	9,500	8,300	3,247	...	47	19	63	129	15	70	...	2,532	600	3,133	3,218	2 5 3	2 11 9	2 12 11													
201	Panigaon khadar khalsa, Muft.	...	...	...	...	...	400	512	...	...	47	226	273	...	43	17	...	179	179	339	0 13 6	1 10 9	2 8 1													
202	Paras ...	2,300	2,400	2,400	2,400	2,399	2,560	897	...	...	8	25	53	...	13	...	...	828	179	850	844	2 13 8	3 0 6	3 1 4												
203	Patlauni ...	4,250	5,000	5,000	5,000	5,000	4,500	1,803	...	16	10	30	56	13	273	...	1,450	12	1,462	1,747	2 7 11	2 9 2	3 1 3													
204	Radol ...	1,600	1,475	1,475	1,475	1,475	2,000	698	...	10	3	12	25	2	33	...	632	6	638	673	2 13 11	2 16 7	3 2 2													
205	Raipur Mai bangar	...	...	...	...	...	1,350	864	...	5	9	102	122	1	43	...	275	419	694	742	1 7 2	1 10 11	1 12 2													
206	Ditto khadar	970	1,300	1,300	1,402	1,401	300	160	...	...	...	64	64	...	1	...	...	95	95	96	1 4 0	2 1 4	2 1 8													
207	Rirha Baldeo	850	850	850	1,050	1,033	800	449	...	...	...	11	164	...	19	...	...	246	12	259	283	1 12 6	2 13 3	3 1 5												
208	Sahora	3,300	3,501	3,501	6,251	6,426	7,500	2,640	...	26	10	64	141	7	94	...	1,994	404	2,398	2,499	2 13 5	3 0 3	3 1 1													
209	Salemabad	650	650	650	650	650	700	331	...	...	...	10	13	...	46	...	...	263	8	261	308	2 2 11	2 4 4	2 10 11												
210	Sarai Ali Khan	280	280	280	240	240	270	181	...	...	...	15	15	...	19	...	...	47	79	126	163	1 7 10	1 10 6	2 2 4												
211	Sarai Daud	900	900	900	900	900	1,300	441	...	...	...	16	25	...	7	...	...	396	9	405	416	2 11 6	2 14 1	3 15 6												
212	Sarai Salbahan	300	300	300	400	400	550	401	...	...	...	108	164	...	3	...	...	187	45	232	287	1 6 4	2 5 9	2 6 7												
213	Sarkand Khara	1,025	1,075	1,075	1,100	1,100	1,180	455	...	...	...	16	15	...	5	...	...	414	30	484	440	2 7 5	2 8 9	2 9 7												
214	Saidpur	2,000	2,500	2,500	2,400	2,400	2,000	1,466	...	...	...	199	231	...	215	...	...	676	240	956	1,175	1 12 7	2 3 6	3 11 6												
215	Schat mahal Hira Lal, bangar.	...	...	...	...	...	480	269	...	...	...	4	9	...	87	...	...	32	230	267	360	1 5 4	1 5 11	1 13 3												
216	Ditto khadar	...	...	...	...	...	40	115	...	...	...	42	46	...	48	...	...	...	21	21	69	0 5 8	0 9 4	1 14 6												

[illegible]

General Statement of Tahsil Mahābān—(concluded).

STATISTICS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Number.	Name of village.	NAT. ASSESSABLE.										ASSESSABLE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Lama of last settlement.		Average of last five years.	Present revenue.	Total area in acres.	Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable land uncultivated.			Cultivated.			Total assessable.	Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and culturable) per acre.	Incidence of present revenue on total cultivated area per acre.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
					Rs.	Rs.										Rs.	Rs.	Rs.	Rs.	Rs.	Rs.					Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.

## MUTTRA.

Constitution and history—Description—Details of area—Communications—Population—Principal towns and villages—Plough and cattle statistics—Sugarcane presses—Baisuri—Irrigation—Crop statistics—Statistics of cultivating occupancy by caste—Comparison of cultivating occupancy at revision with that at the preparation of rough records—Character of the cultivation—Changes in the proprietary possession of the different castes and clans since the commencement of British rule—Proprietary statistics—Transfers—Prices fetched on transfer of land—Tenures—Comparison of past and present areas—Soils—Khádar rates—Application of soil rates to soil areas—Fiscal history, including the results of the present revision of settlement: (a) Pargana Aring, (b) pargana Muttra, (c) pargana Sonkh, (d) pargana Gobardhan, (e) pargana Sonsa—Summary of financial results of the present revision of settlement for the whole tahsil—Rentals before and after enhancement—General statement.

PARGANA and tahsil Muttra, as now constituted, is made up of the five old parganas of Aring, Gobardhan, Sonkh, Sonsa, and Muttra. Constitution and history. These parganas have long since ceased to be treated as distinct revenue subdivisions, but their limits as they stood at last settlement can be easily traced. All five formed part of the territories situated on the right bank of the Jumna which were ceded to the East India Company by Daulat Rao Scindia in 1803. Aring was then mostly in Sahar. Sonkh and Sonsa were at first made over to the Rája of Bhartpur, but by the treaty concluded with him, under date the 17th April, 1805, they were resumed, annexed to the Company's dominions by Regulation XII. of 1806, and put under the jurisdiction of the Collector of Agra, to which district Muttra then belonged. They were immediately made over, however, to Scindhia as a jágir for his wife and daughter, and not finally resumed until 1808. Gobardhan, immediately after the conquest, was granted free of assessment to Kunwar Lachman Singh, a younger son of Rája Ranjít Singh of Bhartpur, and remained alienated until 1826, when, by Regulation V. of that year, it was annexed to the Agra district. On the formation of the new district of Muttra in 1832, these parganas, together with Sahar, Shergarh, and Kosi, were transferred to it from Agra. At first Sahar and these parganas constituted one tahsil, with the headquarters at Sahar, where the tahsildar resided. The home pargana of Muttra was, however, administered by a peshkar in independent charge, who held his office in the civil station. In 1838 Sahar was detached and with Shergarh made into a separate tahsil, when the Muttra tahsil assumed its present dimensions with the tahsili at Aring. In 1867 the headquarters were removed from Aring to Muttra, and the peshkar's establishment broken up. With the exception of the transfer of the village of Bajna from Muttra to Sahar in 1840, no alterations in boundaries have taken place since last settlement.

The pargana lies on the opposite side of the Jumna to Mahában, and extends from that river to the foot of the Bhartpur hills on its north-west frontier. Description. Within the pargana boundaries the only elevation worthy of notice is the "Giriraj," a low range of hills at Gobardhan running in a direction parallel to the Bhartpur range, and celebrated in the mythological legends of the Hindús in connection with their favourite god Kishna. These hills are covered with a very scanty vegetation, rise abruptly out of the plains, and exercise but little influence on the character of the soil within a few hundred yards even of their base. In a settlement point of view they are therefore of little importance; not so the Dig or Bhartpur range, since for some two or three miles before they are reached the soil becomes light and sandy, and finally degenerates into pure bhúr close to the foot of the hills. Khádar or low alluvial soil, ravines, and sandy downs are found along the Jumna, as in Mahában, and the effects of the river on the soil are patent enough for a distance of about three miles inland. From the line where the Jumna ceases to exert its influence up to the line where the soil visibly changes for the worse as the Bhartpur hills are approached, the whole of the country is one flat uniform plain, without a single river or stream to diversify its surface. The general soil is a firm piliya, with here and there veins of bhúr and an odd hillock of púth. Except in the lines of drain-

age known as the western depressions, the tarai or inundated area is generally insignificant, and the whole for assessment purposes has been treated with the surrounding uplands.

The whole area of the tahsil is 185,550 acres, or 290 square miles, of which 151,074 acres, or 236 square miles, are under cultivation. The Details of area. khadar area liable to fluvial action from the Jumna was 5,904 acres during the year of survey (1872-73), and 6,766 acres in 1874-75.

This tahsil, owing to its sacred character, contains an exceptionally large area of revenue-free land, as the following figures show :—

						Acres.
Bāngar	...	{	Khalsa area	...	...	145,207
			Muāfi	...	...	33,577
Khādar	...	{	Khalsa	...	...	5,977
			Muāfi	...	...	5,789
Total						185,550

Of the 144 villages or mauzas constituting the tahsil, 123 are khalsa and 21 muāfi.

There are five first-class metalled roads connecting the city of Muttra with Delhi, Agra, Bhartpur, Dīg, and Brindaban, and three good kucha roads—namely (1) the Muttra and Sonkh, (2) the Sonkh and Sahar, and (3) the Sahar and Brindaban. There are innumerable village roads, besides, which for fair-weather traffic are all that can be desired. The Agra canal has been also opened for navigation ; it is used to some extent for the carriage of goods.

Out of a total population of 201,674 Muhammadans muster only 18,359, and of these many are Malkanas or converted Rājputs. Numerically, the five principal Hindu castes are—

1. Brahmans	...	...	...	...	...	40,995
2. Chamars	...	...	...	...	...	28,128
3. Jāts	...	...	...	...	...	26,914
4. Baniyas	...	...	...	...	...	17,506
5. Thākurs (mainly Gorwas)	...	...	...	...	...	14,874

Bairagis come next with a population of 5,558.

The chief towns and villages, with their populations by the census completed when the rough records were prepared, are:—

Principal towns and villages.						
Muttra, including the sadr basar	...	61,194	Mungarra	...	...	2,537
Brindaban	...	20,625	Radhakund	...	...	2,441
Gobardhan, including Sakitra	...	5,382	Aurangabad	...	...	2,459
Sonkh	...	4,829	Upar with nagla Mana	...	...	2,308
Aring	...	4,511	Baahgaon	...	...	2,168
Bāl	...	3,515	Jait	...	...	2,122
Falson	...	2,036	Bati	...	...	2,003

From these returns the population of subordinate and outlying hamlets have been invariably excluded.

During the year of inspection the number of ploughs was 10,045, and of plough cattle 20,419; other cattle were returned at 58,527, sheep and goats at 12,454, and horses and ponies at 3,471. The average plough area was 15 acres.

There are 405 sugarcane presses with only 411 acres under cane—a sure indication that this crop was formerly cultivated much more extensively than it is now.

The weed *baisuri* is almost unknown in this tahsil, only 159 acres being returned as overrun with it. This is a great change from the Duāb parganas, where it is found so extensively.

The Agra canal, which runs down the centre of the pargana, crossing the Dīg road close to the town of Aring, was opened in March, 1874. Its system of distributary channels has not as yet been perfected,



and although water to a certain extent has been taken in yearly increasing quantity, still irrigation from this source may be said to be in its infancy. With the exception of the Jumna, which forms the eastern boundary of the tahsil, there are no rivers or streams which run the whole year round, or which are of any importance in an irrigation point of view; whilst the country is as free from jhils and marshes as the rest of the district. In fact only 58 acres are recorded as irrigated from such sources, whilst the area actually watered from the Jumna amounts to but 120 acres.

The area habitually irrigated from wells over the bángar portion of the tahsil amounts to 55,491 acres, or 37 per cent. of the total cultivation. This is a low proportion compared with that in the Mahában tahsil, but higher than either in Ohhata or Kosi. In the number of its masonry wells Muttra holds its own as compared with the Duáb, but in kucha wells there is a great falling off. In Muttra, although the average depth to water throughout does not exceed that of the Duáb parganas, still there is a large tract to the north-west towards and beyond Radhakund, where it is found at depths varying from 50 to 62 feet. There wells are very scarce, and irrigation is little resorted to. The average depth over the whole tahsil is 40 feet, but it must be remembered that the greatest number of wells, kucha ones specially, are found in the most favoured parts. Thus the average is considerably dragged down. If wells were uniformly dug everywhere throughout the tahsil as in Mahában, I should certainly put the average at 45 feet at least. The average area habitually irrigated from each well is 9 acres. The following are the statistics regarding the different description of wells and the quality of their water :—

Used for irrigation proposes.				Quality of water.			No. of wells in use.
Pucka wells	...	...	1,120	Sweet	...	...	2,804
Garwari	...	...	518	Slightly brackish	...	...	801
Ajhar	...	...	4,361	Slightly oily	...	...	495
Without any artificial support	...	...	149	Brackish	...	...	1,367
Total			6,143	Oily	...	...	30
				Both brackish and oily	...	...	296
				Destructive or poisonous	...	...	219
				Containing ammonia in solution in perceptible quantities	...	...	240
				Total		...	6,143

Other circumstances remaining the same, it stands to reason that wells are dug more frequently in those tracts where the water is good than where it is bad; hence we may safely conclude from the above figures that over the greater portion of the tahsil the well water is more or less inferior.

Crop statistics.\*

For the bangar, including mudfi.

KHARIF.					RABI.					GARDEN CROPS OR KACHHIYANA.				
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfasil.	Dofasil.	Total.			Ekfasil.	Dofasil.	Total.			Ekfasil.	Dofasil.	Total.	
Sugarcane ...	273	2	274	0.18	Wheat ...	7,146	518	7,664	5.07	Tobacco ...	34	52	86	0.06
Cotton ...	14,875	525	15,400	10.19	Barley ...	5,625	1,683	7,308	4.83	Other crops.	498	150	648	0.43
Indian-corn, ...	24	509	533	0.35	Bejhar ...	9,350	169	9,519	6.30					
Juar ...	61,343	1,518	62,861	41.59	Gram ...	29,414	1,496	30,910	20.46					
Bajra ...	7,699	1,444	9,143	6.05	Gojai ...	551	65	617	0.41					
Rice ...	3	19	22	0.01	Other crops,	261	259	520	0.34					
Indigo ...	10	16	26	0.02										
Hemp ...	133	40	173	0.11										
Khurti ...	2,130	82	2,212	1.47										
Other crops,	3,000	238	3,238	2.14										
Total ...	89,489	4,393	93,882	62.11	Total ...	52,347	4,191	56,538	37.40	Total ...	532	202	734	0.49
Area under arhar, 28,962.														

Area under arhar, 28,962.

\* At the last settlement kharif covered 64.1 per cent. of the area, and rabi 35.9 per cent. Cotton was grown in 10.6 per cent., wheat in 4.2 per cent., and barley in 3.8 per cent.

For the khádar, including mudfi.

KHARIF.				RABI.				GARDEN CROPS OR KACHHIYANA.						
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.	
Sugar cane,	137	...	137	3.96	Wheat	791	3	794	22.96	Melons ... O t h e r crops.	267	1	268	7.74 1.80
Cotton ...	184	8	192	5.55	Barley	353	32	385	11.13					
Indian-corn,	...	1	1	0.03	Bejhar	669	24	693	20.02					
Juar	573	32	605	17.48	Gram	24	3	27	0.78					
Bajra	87	23	110	3.18	Gojal	127	...	127	3.67					
Hemp	1	...	1	0.03										
Khurti	5	...	5	0.15										
Other crops,	49	4	53	1.58										
Total ...	1,036	68	1,104	31.91	Total ...	1,944	62	2,006	58.55	Total ...	324	6	330	9.54

Total crop area, both khádar and bángar ...  
Deduct dofali 4,461 + cultivated mudfi 28,364

Net khalsa cultivation

... 154,614 + Fallow 921 = 155,535  
... = 32,725

Area under arhar, 8

acres.

The most important points to be noted are :—

(1)—The increase in kharif, and the consequent decrease in rabi cultivation as distinguished from the Duáb parganas.

(2)—The great falling off in wheat, barley, and even bejhar, and the exceptionally large proportion of the rabi area sown to gram, a crop very seldom irrigated.

(3)—The almost total absence of rice, indigo, and hemp, and the marked decrease in cotton, arhar, Indian-corn, and garden products generally.

(4)—The enormous area under juar—41 per cent. of the whole—being quadruple that under cotton and eight times that under wheat. Each and all of the facts are in favour of the Duáb parganas, where the cultivation is closer, and where much more time and labour are spent over equal areas of land. Here the great desideratum is hands to till the soil, not land to be tilled, as in the Duáb.

Statistics of cultivating occupancy by caste for khalsa area.

Caste.	Str.			Ex-proprietary tenants.				Tenants with occupancy rights.					Tenants-at-will.					
	Number.	Area.	Average holding.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.
		Acres.		Number.	Acres.	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.
Brahmans ...	1,073	7,816	7.3	47	31	4	5.3	0 2 1	1,666	10,485	28,421	5.6	2 11 5	904	4,835	12,751	5.3	2 10 2
Játs ...	2,355	16,780	7.4	6	340	1,461	7.2	4 4 9	1,670	10,418	32,157	6.2	3 1 3	1,444	8,028	27,333	5.5	3 6 4
Thákurs ...	606	4,427	7.3	...	21	58	3.5	2 12 2	1,881	14,044	33,945	7.5	3 6 9	687	6,877	14,536	10.0	2 1 10
Muhammáds,	138	1,334	9.0	...	...	...	...	...	637	3,374	9,454	5.3	2 12 10	306	1,061	2,625	3.5	2 7 8
Chamárs ...	15	81	5.4	...	...	...	...	...	1,708	8,460	25,251	4.9	2 15 10	1,396	6,366	19,477	4.6	3 0 11
Baniyas ...	48	261	5.4	...	...	...	...	...	107	573	1,322	5.3	2 4 11	130	546	1,432	4.2	2 9 11
Garariyas ...	5	23	4.6	...	...	...	...	...	269	1,159	3,240	4.0	2 12 8	129	609	1,777	4.7	2 14 8
Barhais ...	3	9	3.0	...	...	...	...	...	169	697	1,620	3.5	2 11 6	109	351	1,100	3.2	3 2 2
Kachi ...	4	5	1.2	...	...	...	...	...	265	1,353	4,338	4.8	3 7 5	228	817	2,817	3.6	3 7 2
Nai ...	4	5	1.2	...	...	...	...	...	106	199	502	1.9	2 8 5	78	190	577	2.4	3 0 7
Mallah ...	5	37	7.4	...	...	...	...	...	32	90	240	2.8	2 10 8	253	586	1,882	2.3	3 2 5
Gujar ...	25	225	9.0	...	28	105	...	3 12 0	188	1,695	4,081	8.5	2 8 11	68	431	1,105	6.3	2 9 0
Other castes,	73	503	7.0	1	12	42	12.0	3 8 0	647	3,246	7,547	5.0	2 5 2	839	2,870	7,478	3.4	2 9 8
Total...	4,253	31,405	7.4	60	432	1,670	7.2	3 13 10	9,565	55,493	1,52,118	5.8	2 11 10	6,571	33,562	94,790	5.1	2 13 2

**Comparison of cultivating occupancy at revision with that at the preparation of rough records.**

Description.	At revision.					At preparation of rough records.				
	Number of holders.	Area.	Rent.	Rate.	Average holding.	Number of holders.	Area.	Rent.	Rate.	Average holding.
Sir ...	3,618	30,059	40,724	...	8.31	4,253	31,405	34,428	...	7.38
Ex-proprietary tenants,	...	...	...	...	...	6	432	1,670	3 13 11	7.03
Land held by resident tenants with occupancy rights.	2,040	18,030	55,064	2 0 10	8.84	7,381	44,828	1,19,148	2 10 6	6.07
Land held by non-resident tenants with occupancy rights.	233	2,203	5,643	2 9 0	9.45	2,184	10,665	32,970	3 1 6	4.88
Land held by resident tenants-at-will.	7,713	42,999	1,08,130	2 8 2	5.57	4,715	25,999	69,621	2 10 10	5.51
Land held by non-resident tenants-at-will.	3,908	16,321	39,158	2 6 3	4.18	1,856	7,563	25,169	3 5 2	4.07
Rent-free land granted by zamindars.	570	1,509	...	...	2 65	794	1,563	...	...	1.95
Cultivated gardens, &c.	...	...	...	...	...	...	355	...	...	...
<b>Total ...</b>	<b>18,082</b>	<b>111,120</b>	<b>2,48,724</b>	<b>...</b>	<b>...</b>	<b>21,213</b>	<b>122,310</b>	<b>2,83,006</b>	<b>...</b>	<b>...</b>

Character of the cultivation.

Either as tenants or owners of sir land, Játs, Thákurs, Brahmans, Chamárs, and Muhummadáns hold between them almost nine-tenths of the cultivated area. The Játs, who cultivate 35,463 acres, are just as industrious and skilful as their brethren in the Duáb, but they are badly seconded by the other castes. The Rájputs and Musalmans are wretched cultivators, lazy, ignorant, and unenterprising; and the Brahmans and Chamárs, although better than the Rájputs, are far inferior to the Játs. The only other castes which affect the agricultural character of the tahsil in the slightest degree are Lodhás, Mális or Káchhis, Garariyas, Gújars, and Ahírs, and not one of these castes cultivates individually 2 per cent. of the whole area.

**Changes in the proprietary possession of the different castes and clans since the commencement of British rule.**

On our taking over the administration of the country at the beginning of the present century, the possessions of the different castes and tribes stood as follows :—

Gorwa Thakurs.					
Kachwahes.	Jasawats.	Gaurs.	Tirkars.	Tomars.	Pomars.
33½	14½	6½	6½	3½	1
Jadon Thakurs.	Nirban Thakurs.	Jats (Kuntel).	Brahmans (Senadh).	Gujars.	Malkhanas.
4	4	32½	20½	2	6½
Ahwasis.	Ahirs.	Kolis.	Jogis.	Lodhes.	Chamars.
2½	1½	4	4	2	1
Musalmanas.	Total.				
1	143				

The Brahmans, although collectively of considerable importance, constituted no distinct colony, but are found scattered over the different parganas, and often own only portions of individual villages. In a political point of view, they were then, as now, of little weight. Some of the hereditary zamíndars of this caste have been forced to part with their property, but the body, as a whole, has more than held its own, as the subjoined statement proves. The Játs (mainly of the Kuntel tribe or subdivision) were confined almost entirely to the villages in the south-west corner of the tahsíl, where their descendants still occupy a compact tract of country, with Sonkh as its capital. The tenure most affected by them is the bháiáchara. They are industrious and frugal, and, unlike their brethren in Mahában, have managed to retain a large share of their hereditary possessions. At the beginning of the century they owned 32½ out of a total of 143 villages, and they are still zamíndars of one-fourth of the khalsa area of the tahsíl. The remainder and bulk of the tahsíl, excluding the tract colonized

by the Kuntel Jāts, was at the time of the annexation dominated over by Ghorwa Rājputs: the Jasawat subdivision occupying the north-west portion around and beyond Gobardhan, and the Kachwahs spreading over the whole of the centre and east, where they were all-powerful as zamindars. Most of the largest villages were held by these Kachwahs, who were then, at the lowest estimate, proprietors of half the tahsil. They have suffered most severely under our rule, owing, I am bound to say, almost entirely to bad management, engendered by lazy and extravagant habits, and they are not now in possession of one-sixth of their ancestral lands. Thākurs of all tribes at present (see below) only own 17 per cent. of the khalsa area, against 50 per cent. at the conquest; and of this 17 per cent, even, the Rāja of Awa (a new proprietor) is zamindar of almost one-half.

*Proprietary statistics.*

Caste.	Resident.			Non-resident.			Totals.		
	Number of owners.	Area owned in acres.	Average holding in acres.	Number of owners.	Area owned in acres.	Average holding in acres.	Number of owners.	Area owned in acres.	Average holding in acres.
Brahmans ...	1,531	15,355	10·03	501	19,614	39·15	2,032	34,969	17·24
Thākurs ...	833	9,970	11·97	73	17,383	238·11	906	27,352	30·19
Jāts ...	3,414	28,798	8·43	419	6,714	16·02	3,833	35,512	9·27
Baniyas ...	101	1,198	11·83	179	16,530	92·35	280	17,728	63·3
Muhammadans ...	326	2,375	7·28	88	1,961	22·28	414	4,336	10·47
Kayaths ...	14	44	3·14	29	6,730	232·07	43	6,774	157·53
Gājars ...	30	450	15·00	5	111	22·2	35	561	16·06
Dhusars ...	...	...	...	8	788	98·5	8	788	98·5
Other castes ...	204	2,282	11·18	121	17,610	145·53	325	19,892	61·2
Total ..	6,443	60,369	9·37	1,423	87,440	61·45	7,866	147,809	18·72

During the settlement 114,484 acres were transferred from the persons with whom the last settlement was concluded; of this, however, 17,320 acres have changed hands by gift, chiefly those villages with which the Seth endowed his temple at Bindraban. Omitting this area, we find that 97,164 acres, or 52 per cent. of the whole area, has passed from the owners at last settlement during the settlement. Breaking this up into the various kinds of transfer, we find—

Transfers among the sharers in acres.						Transfers to strangers in acres.					
Private sale.	Sale under decree of civil court.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.	Private sale.	Sale under decree of civil court.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.
5,429	1,319	436	3	1,184	4,782	36,530	24,940	10,128	17,317	4	12,712

This shows us the amount transferred from the original proprietors, but in the following one are shown the transfers which took place at the three periods from the settlement to the revision of records, from the revision of records to the mutiny, and from the mutiny to the end of settlement. This statement shows the area, the subject of transfer, so that land more than once transferred appears again in the statement for each transfer :—

Transfers among the sharers in acres.						Transfers to strangers in acres.					
Private sale.	Sale under decree of civil court.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.	Private sale.	Sale under decree of civil court.	Sale for arrears of revenue.	Gift.	Confiscation.	Mortgage.
1st period, from the settlement to the revision of records.											
1,483	144	435	...	1,184	8,325	27,000	26,079	30,984	1,854	...	41,195
2nd period, from the revision of records to the mutiny.											
401	82	...	...	...	1,371	9,859	4,415	903	1,933	...	12,184
3rd period, from the mutiny to the end of the settlement.											
5,843	1,975	91	26	...	4,651	68,206	5,820	2,239	28,885	4	29,990

These three periods however are of unequal duration—the first being ten years, the second eight years, and the third sixteen years. The total area, the subject of transfer, is thus 316,615, or  $1\frac{1}{2}$  times the area of the tahsil. Of this 137,737, or 43·5 per cent., were transferred in the first period; 31,148, or 9·8, in the second, and 147,730, or 46·7 per cent. in the last. Thus the transfers were heaviest during the first period and lightest during the second. Since the conquest the hereditary proprietary castes whom we found in possession of the pargana have parted with over three-fourths of the area, as follows:—

To members of the proprietary body.				To strangers.				
Private sale.	Civil court sale.	Auction for arrears of revenue.	Mortgage.	Private sale.	Civil court sale.	Auction for arrears of revenue.	Gift.	Mortgage.
3,553	492	434	4,419	37,336	18,902	10,306	20,994	6,977

The following statement exhibits the average prices which khalsa lands subjected to the various kinds of transfer have fetched. All transactions of which it was impossible to ascertain the precise terms have been eliminated:—

Description of transfer.	Total area.	Price.	Average price per acre of total area.	Revenue.	Amount of purchase-money per rupee of revenue.
<i>Last settlement to revision.</i>	Acres.	Rs.		Rs.	
Private sale ...	15,549	29,680	1·9	20,258	1·46
Public sale in execution of decrees ...	18,582	41,787	2·2	19,819	2·11
Public sale for arrears of revenue ...	29,195	25,397	0·9	44,336	·57
Mortgage ...	30,892	81,516	2·6	46,999	1·73
Total ...	94,211	1,78,380	1·9	1,31,412	1·35
<i>Revision to the mutiny.</i>					
Private sale ...	6,299	29,817	4·7	8,092	3·68
Public sale in execution of decrees ...	1,267	4,616	3·6	1,496	3·09
Mortgage ...	6,047	33,793	5·6	6,837	4·93
Total ...	13,613	68,156	5·0	16,425	4·15
<i>Mutiny to 1281 fash.</i>					
Private sale ...	19,319	1,94,572	10·1	26,412	7·36
Public sale in execution of decrees ...	2,530	28,742	11·4	3,853	7·51
Ditto for arrears of revenue ...	2,476	807	0·3	2,907	·28
Mortgage ...	14,511	1,15,695	7·9	19,387	5·99
Total ...	38,836	3,39,816	8·8	52,459	6·47

**Tenures.**

A full description of the tenures which prevail in the three Cis-Jumna tahsils has been already given.

**Comparison of past and present areas.**

	Total area.	NOT ASSESSABLE.					ASSESSABLE.						
		Mufl.	Village site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable waste.	Fallow.	Cultivated.			Total assessable.
										Irrigated.	Dry.	Total.	
	Acres.		Details not known.			Acres.	Details not known.						
Last settle- ment.	148,011	5,422	15,518			20,940	17,084		13,575	22,444	74,018	96,462	127,071
Revision,	188,907	37,963	1,717	1,126	11,819	52,625	565	17,906	6,691	24,232	86,888	1,11,120	135,582
Present set- tlement.	185,550	36,366	2,349	1,097	6,906	46,718	1,446	13,677	900	46,845	75,965	122,810	138,623

At last settlement the entire villages then held revenue-free were not surveyed, and their areas in consequence did not appear in the returns for that period. The 5,422 acres shown as muáfi represented, therefore, only those revenue-free patches found at the time scattered over the khálsa area. The returns for "revision" and "present survey" on the contrary embrace all descriptions of land, whether paying revenue to Government or not; and the muáfi areas include entire revenue-free villages, as well as those plots or patches in the khálsa villages exempted from the payment of revenue. The khálsa cultivated area (with which we are at present most concerned) has increased from 96,462 acres in 1840 to 122,810 acres in 1874-75—an advance of 27 per cent; whilst the khálsa irrigated area during the same period has risen from 22,444 acres to 46,845 acres. There are still 14,577 acres of fair culturable waste, including fallow. The details of the present settlement for the khálsa and muáfi portions of the tahsil, further subdivided into bángar, and khádar, are as follows:—

		Total area.		Cultivated area.	
		Acres.		Acres.	
Khálsa	{ Bángar	...	...	145,207	121,113
	{ Khádar	...	...	3,977	1,697
Muáfi	{ Bángar	...	...	33,577	26,602
	{ Khádar	...	...	2,789	1,662

The classification of soils in this tahsil differs very slightly, indeed, from that adopted in the Duáb parganas, whilst the system of inspection has been already given. Of gauhan land I recognised four subdivisions—superior, ordinary good, ordinary fair, and poor. The manjha has been similarly subdivided. The irrigated barha or outlying land I have broken up into three classes—good, average, and below average; and the unirrigated barha into six, viz.—

Dry barha I., good,  
 " " I., average.  
 " " I., below average.  
 " " II.  
 " púth fair of its kind.  
 " " bad.

The tárai lands have been grouped and treated with the circles to which they belong, as no separate rates for such soils exist in this tahsil. The Jumna khádar contains the following six classes or groups of soil, which are easily distinguishable one from the other:—

A.—Superior land close to village sites, higher in level than ordinary, growing cane, garden produce, and rich rabi crops.

B.—Not equal to A, but still firm and good; capable of producing good rabi and cane in the higher lying fields.

C.—Average khádar, mostly sown to wheat and bejhar.

D.—Indifferent khádar, sandy in soil and impregnated with reh.

E.—Jumna sand; cultivation generally confined to melons, cucumbers, and hot-weather crops.

Owing most probably to the numerous political changes which this tract of country has from time to time undergone, almost every method of levying rents known in the North-Western Provinces is in force here—from purely revenue-rates, paid equally by proprietors and tenants, to rack-rents, the result of the hardest bargains which the landlord can strike with his cultivators. There are all-round rates on cultivation, crop rates, irrigated and dry rates, rough soil rates, rates for resident and non-resident cultivators, rates for hereditary tenants and rates for tenants-at-will, rates on ploughs, rates on wells, rates varying according to the quality of the water used, rates for manured and unmanured land, lump rates, and, finally, numerous modified sets of rates based on and derived from two or more of those already specified. All these existing rates have been carefully enquired into, and a full record of them made in the village histories prepared prior to assessment. This enquiry was not only interesting on its own account, but, besides, threw considerable light on the inner economy of the different villages, and on the manner in which the various land-owning classes had hitherto managed their properties. I have been able to extend my inductions to 26,180 acres of all kinds of soil held on fair and equitable terms by all classes of tenants. All instances where holdings or areas paying rent separately were comprised of one soil were, as usual, extracted and averages struck, with the following result :—

		No. of exam- ples.	Area Acres.	Rent. Rs. a. p.	Rate. Rs. a. p.
Gauhan, superior	...	25	41.04	420 6 0	11 15 2
" ordinary good	...	41	54.27	364 14 2	6 11 7
" " fair	...	12	26.55	164 12 0	6 3 2
" poor	...	...	...	...	...
Manjha superior	...	39	66.04	422 0 0	6 6 2
" ordinary good	...	65	117.32	711 4 2	6 1 0
" " fair	...	30	106.51	600 1 6	5 10 1
" poor	...	10	23.10	119 5 9	5 2 8
Irrigated barha I., good	...	348	1,300.48	6,441 8 6	4 15 2
" " fair average	...	285	936.35	4,527 5 2	4 12 7
" " below "	...	50	127.34	568 2 2	4 2 0
Dry barha I., good	...	252	893.59	3,101 12 9	3 7 6
" " average	...	1,625	5,207.40	20,129 2 2	3 12 9
" " below average	...	287	1,042.44	3,615 15 11	3 7 6
Dry barha II.	...	272	821.40	3,017 8 6	3 10 9
Dry puth a	...	211	492.99	1,199 15 9	2 6 11
" puth b	...	151	517.27	908 9 2	1 12 1

For the gauhans, manjhas, and irrigated barhas the rates arrived at are in my opinion fair standard ones. They are borne out by general existing rates, and are such as my experience of the pargana would lead me to accept. There is thus nothing against them, and everything in their favour. I accordingly adopted them with slight modifications to facilitate calculations. The most important of these six dry soils is dry average barha I., which occupies 42,228 acres, or more than one-third of the whole khalsa area. Of this soil alone 1,625 examples, covering an area of 5,207 acres, and paying a rental of Rs. 20,129-2-2, have been secured. The deduced average rate per acre is Rs. 3-12-9. In round figures I have fixed on Rs. 3-12-0. Taking this rate as a standard, the best dry barha I. has been valued at Rs. 4, and the inferior dry barha I. at Rs. 3-6-0 per acre, irrespective of the actual averages as shown above. Similarly, although the averages for dry barha II., puth a, and puth b, are Rs. 3-10-9, Rs. 2-6-11, and Re. 1-12-1 respectively, Rs. 3, Rs. 2-4-0, and Re. 1-8-0 have only been assessed, as such precarious soils should be always leniently treated and an ample margin left for bad seasons.

Working back and applying the rates as finally determined on to the selected areas, we get an estimated rental of Rs. 1,06,540-12-0 against an actual rental of Rs. 1,04,139—a very close approximation:—

		Acres.	Ra.	Ra. a. p.
Superior gauhan	...	293 X 12	=	2,436 0 0
Gauhan, ordinary good	...	314 X 7	=	1,498 0 0
" " average	...	169 X 6½	=	1,056 4 0
" poor	...	27 X 5½	=	148 8 0
Superior manjha	...	402 X 6½	=	2,613 0 0
Manjha, ordinary good	...	682 X 6	=	4,092 0 0
" " average	...	659 X 5½	=	3,624 8 0
" poor	...	97 X 5	=	485 0 0
Irrigated barha I, good	...	3,142 X 5	=	15,710 0 0
" " average	...	3,891 X 4½	=	16,107 4 0
" " below average	...	670 X 4½	=	2,763 12 0
Dry barha I, good	...	1,612 X 4	=	6,448 0 0
" " average	...	8,960 X 3½	=	31,500 0 0
" " below average	...	1,596 X 3½	=	5,586 0 0
" barha II.	...	2,067 X 3	=	6,201 0 0
" path a	...	1249 X 2½	=	2,810 4 0
" " b	...	1,040 X 1½	=	1,560 0 0
		<u>26,180</u>		<u>1,06,540 12 0</u>
		Rate	...	Ra. 4-1-1 per acre.

The above remarks apply to the bāngar area alone. For the khādar soils the following rates were fixed:—

	Per acre.
	Ra. a. p.
A.—Superior khādar close to village sites	...
B.—Good outlying khādar	...
C.—Ordinary outlying khādar	...
D.—Indifferent	...
E.—Jama land when cultivated to melons, cucumbers, and hot-weather crops	...
	...

Application of soil rates to soil areas.

Applying my proposed rates to the different soil areas composing the tahsil, the following results are obtained:—

Bangar khalsa area.		Acres.	Ra.	Ra. a. p.
Gauhan, superior	...	1,027 X 12	=	12,324 0 0
" ordinary good	...	1,840 X 7	=	12,880 0 0
" " fair	...	1,126 X 6½	=	7,037 8 0
" poor	...	148 X 5½	=	814 0 0
Manjha, superior	...	1,584 X 6½	=	10,296 0 0
" ordinary good	...	3,705 X 6	=	22,230 0 0
" " fair	...	4,118 X 5½	=	22,649 0 0
" " poor	...	881 X 5	=	4,255 0 0
Irrigated barha I, good	...	12,290 X 5	=	61,450 0 0
" " fair	...	16,192 X 4½	=	76,912 0 0
" " below average	...	6,262 X 4½	=	28,718 4 0
Dry barha I, good	...	5,945 X 4	=	23,780 0 0
" " average	...	42,278 X 3½	=	1,52,365 0 0
" " below average	...	2,645 X 3½	=	32,551 14 0
" " II.	...	8,618 X 3	=	16,539 0 0
" path	...	4,688 X 2½	=	10,548 0 0
" " bad	...	2,268 X 1½	=	4,902 0 0
Total	...	<u>1,21,920</u>		<u>5,05,861 10 0</u>

#### Khādar khalsa area.

	Acres.	Ra.	Ra.
A. ...	183 X 8	=	1,224
B. ...	793 X 6	=	4,758
C. ...	322 X 5	=	1,910
D. ...	74 X 3	=	222
E. ...	318 X 6	=	1,908
Total	<u>1,720</u>		<u>10,022</u>



*Bangar muafi area.*

			Area.	Rs.	Rs. a. p.
Gauhan, superior	...	...	150	× 12 =	1,800 0 0
" ordinary good	...	...	289	× 7 =	2,023 0 0
" " fair	...	...	197	× 6½ =	1,231 4 0
" poor	...	...	15	× 5½ =	82 8 0
Manjha, superior	...	...	106	× 6½ =	689 0 0
" ordinary good	...	...	487	× 6 =	2,922 0 0
" " fair	...	...	650	× 5½ =	3,575 0 0
" poor	...	...	57	× 5 =	285 0 0
Irrigated barha I, good	...	...	1,758	× 5 =	8,765 0 0
" " " fair	...	...	2,470	× 4½ =	11,132 8 0
" " below average	...	...	910	× 4½ =	3,753 12 0
Dry barha I, good	...	...	2,317	× 4 =	9,268 0 0
" " " average	...	...	7,351	× 3½ =	27,566 4 0
" " below average	...	...	2,322	× 3½ =	11,211 12 0
" barha II	...	...	1,293	× 3 =	3,879 0 0
" puth	...	...	914	× 2½ =	2,124 0 0
" puth bad	...	...	857	× 1½ =	1,285 8 0
Total	...	...	23,168		92,193 8 0

*Khadar muafi area.*

			Acres	Rs.	Rs.
A.	...	...	279	× 8 =	2,232
B.	...	...	780	× 6 =	4,680
C.	...	...	245	× 5 =	1,225
D.	...	...	106	× 3 =	318
E.	...	...	143	× 6 =	858
Total	...	...	1,553		9,313

			Acres.	Rs.
Khalsa	{	Bangar	121,090	5,05,862
		Khadar	1,720	10,022
		Total	122,810	5,15,884
Muafi	{	Bangar	23,168	92,193
		Khadar	1,553	9,313
		Total	24,719	1,01,506

A half-asset settlement at my proposed rates would therefore result in—

			Rs.
Khalsa area	{	Revenue	2,57,940
		Cesses	25,794
		Total	2,83,734
Muafi area	...	Cesses	5,076

## PARGANA ARING.

This pargana at last settlement consisted of 21 khalsa and 3\* muafi villages, and it is to it as then constituted that the following remarks apply :—Of the muafi villages, two—Jatipura and Bati—were resumed in 1840 A.D. by the district authorities, but they were shortly afterwards released in perpetuity by the Special Commission then sitting at Meerut. At the end of the second triennial settlement in 1218 fasli the Government revenue stood at Rs. 15,935, excluding the large village of Aring khas, which was held in jagir by Babu Biswanath, a Kashmiri, until his death in 1818 A. D. (1225-26 fasli). The country at the commencement of the first quartenial settlement, 1219 to 1222 fasli, was in a very disturbed and wretched condition, and a demand of Rs. 17,147 was thought sufficient. Even this exceedingly low jama was with difficulty collected during the three years of drought (1220, 1221, and 1222 fasli) which closed the settlement. In 1219 fasli a standard assessment of Rs. 21,716 was imposed, and this settlement, with Rs. 6,447 added for Aring khas on the Kashmiri Babu's death, continued in force until 1235 fasli. Mr. Boddam then, under

\* Jatipura, Bati, Palson. The 21 khalsa villages constitute now 29 estates, Bhadal being broken up into 7 mahals, Padal into 2, and Bisonti into 2.

Regulation VII. of 1822, settled the seven villages of Deosaras, Ganthauli, Aríng, Tond, Mundsaras, Pádál, and Sehi at a jama of Rs. 23,977, an increase of Rs. 9,794 on their current demand; whilst the jamas of Bisonti and Bhadál were also at the same time added to by Rs. 1,101, thus raising the revenue of the whole pargana to Rs. 39,058. In 1241 and 1242 fasli some difficulty was experienced in realising the Government dues from Mr Boddam's villages, but in the remaining 14 the collections were made with the greatest ease. The general revision under Regulation IX. of 1833 was completed by Mr. Tyler in 1244 fasli, his new leases taking effect from 1245 fasli. The records of the 7 villages settled by Mr. Boddam were remodelled and their aggregate jama reduced from Rs. 23,977 to Rs. 22,670, whilst the Government demand of the remaining villages was raised from Rs. 15,081 to Rs. 25,875. The net increase taken by Mr. Tyler was thus Rs. 9,487, and his jama of Rs. 48,545 exceeded that of 1235 fasli by Rs. 20,382. The rent-rate used by him for calculating his assets were only three in number—Rs. 5-4-3½ per acre for irrigated land, Rs. 2-10-1½ and Rs. 2-1-4½ for 1st and 2nd class dry land. These rates were very fair ones at the time, and Mr. Tyler's assessment must have been a very moderate one, or the pargana would not have recovered so rapidly from the effects of great famine which, unfortunately for Mr. Tyler's arrangements, commenced in 1245 fasli, the very year in which his new jamas begun for the first time to be realised. His settlement, however, stood this the severest of all tests bravely, and during the subsequent scarcities of 1860-61 and 1868-69, although the people suffered for a time, they recovered very rapidly and brought the land again under cultivation almost immediately. Mr. Tyler's revenue of Rs. 48,545 became Rs. 48,247 during the last year of the expired settlement;—

<i>Increase.</i>	<i>Ra.</i>	<i>Decrease.</i>	<i>Ra.</i>
Resumed musáfi	... 36	Land taken up for roads	... 13
		Ditto for canal	... 314
		Ditto for customs line	... 7
		Total	... 334
		Net decrease	... 298

The estimated assets of the pargana at my proposed rates pointed to a jama of Rs. 67,950, but owing to the heavy increase thus indicated and the backward condition of some of the villages, I fixed on the following progressive demand:—

	<i>Ra.</i>
1st year	... 56,920
2nd "	... 57,920
3rd "	... 59,920
4th "	... 61,320
5th "	... 62,670
6th "	... 62,870

My standard jama, which will be reached in 1881-82, is thus Rs. 14,623, or 30 per cent. in excess of the demand which has just expired. Since Mr. Tyler's assessment the cultivated area has advanced from 26,858 to 33,382 acres, or 19 per cent., and the irrigated area has similarly risen from 2,963 to 8,386 acres, an increase of 183 per cent. There are still 5,416 acres of fair culturable waste to fall back upon, and the Agra canal must in a few years add greatly to the prosperity of the pargana.

The local cesses on the three revenue-free villages of Jatipur, Bati, and Palson have been raised by me from Rs. 1,056-15-2 to Rs. 1,133.

#### PARGANA MUTTRA.

This pargana was administered by a peshkar in independent charge up to 1861, when the headquarters of the tahsíl were removed from Aríng to Muttra and the peshkárship abolished. It is the only one of the five parganas which borders on the Jumna, hence the whole of the khádar area belongs to it, so also do the ravines and the bhúr villages touching on them. The well water is sweeter and nearer the surface than in the other parganas, and the irrigated area is in consequence larger in proportion.

This and proximity to the city make up to a certain extent for the sandy character of many of the villages. On our acquisition of the country from Scindhia the greater portion of this pargana was not assessed to revenue, and even now 17,446 acres out of a total area of 54,452 acres are revenue-free, chiefly in the shape of endowments to temples and religious institutions at Muttra, Brindaban, and Gokul. Owing to the continual resumption of muáfi grants from different causes the khalsa area is always changing, and on this account it is of little use to compare the revenue payable at one period with that paid at another, unless we can also ascertain the areas on which such revenues were paid. Mr. Tyler gives the average collections from 1216 to

	Rs.
1216 to 1218 fasli	9,967
1219 „ 1222 „	12,127
1223 „ 1237 „	28,343
1238 „ 1247 „	25,253

1247 fasli as per margin, but he unluckily does not mention the areas over which they were collected. He adds, however, that the revenue had always been realised with the greatest ease, except from the villages of Jaisinghpura and Brindaban, where the zamíndars refused to engage. In all the other villages, from the introduction of the British rule down to the great famine of 1245, no real balances according to him ever accrued. He raised the demand from Rs. 29,139-6-0 to Rs. 39,006, but a large portion of the increase was due to the resumption of muáfi land. His revenue fell at the rate of Rs. 2-1-0 per acre on cultivation and Re. 1-9-11 on the malguzari area. Although alienations have been frequent in this pargana since 1840, still there is no evidence that Mr. Tyler's settlement has pressed inordinately on the proprietary body, and there has certainly never been any difficulty in collecting the revenue. During the settlement, the villages of Aurangabad, Arhuki, Larpur, Tehra, Ahilliaganj, Dhaurera, and Kota have been resumed, while Mundesi, which was assessed at the last settlement, has since been released. The pargana now consists of villages composed of 66 bángar and 22 khádar estates. Of the bángar maháls 55 are khálsa and 11 muáfi, whilst of the khádar the numbers are 19 and 3 respectively. In some of the khálsa villages there are large revenue-free areas which still do not constitute estates or maháls by themselves.

The revenue of the last year of the expired settlement (1875-76) stood at Rs. 46,334-12-0—an increase of Rs. 7,328-12-0 on Mr. Tyler's standard jama. This large increase is caused as follows :—

Increase.			Decrease.			Rs.
Resumption of revenue-free land	...	...	Land taken up for a road	...	...	25
Alluvion	...	...	Ditto for canal	...	...	34
			Ditto for customs line	...	...	49
			Ditto for parao	...	...	82
Total	...	...	Land assessed at last settlement, but since released	...	...	2,130
			Diluvion	...	...	459
						<u>2,779</u>
Net increase			...			7,328 12 0

By applying my proposed rates to the soil areas I get for the khálsa portions of this pargana the following estimated rental :—

	Rs.
Bángar	99,510
Khádar	10,020
Total	<u>1,09,530</u>

This points to a revenue of Rs. 54,760.

My final assessment has been—

	Rs.
1st year	49,745
2nd „	50,145
3rd „	50,495
4th „	50,595
5th „	50,845

on a cultivated area of 27,410 acres.

## PARGANA SONKH.

The boundaries of last settlement can easily be traced. The pargana then contained 42 khálsa and 3 muáfi estates. Of the latter one—Jhapra—has been since resumed and assessed, whilst the other two—Pentha and Unchagaon—remain revenue-free as before. Of the 42 khálsa estates 21 emanated from the township of Sonkh, which was originally divided into six pattis or portions assigned to the descendants of the Ját founder. These pattis all branch out from the old khera in which they have each a share. Their boundaries have been distinct since our acquisition of the country, although khetbat still exists to some extent, and they have therefore been virtually six separate villages all along. They are named :—

(1) Dungar patti.	(4) Senga patti.
(2) Nainu „	(5) Ahmal „
(3) Lohra „	(6) Malhu „

Dungar patti was prior to last settlement further subdivided into five\* maháls or

* 1. Tasiha.	5. Chauthaya.	estates with separate jamas and responsibilities, Nainu patti into eleven,† maháls, and Ahmal patti into two‡ thus bringing up the total number of estates to 21.
2. Purana.	6. Seda.	
3. Sahjua.	7. Nagla Kalan (Nainu Khás).	
4. Ase.	8. Kanku.	
5. Ajaí.	9. Ghaniyan.	
† 1. Khílu.	10. Bhunch.	
2. Jangli Bari.	11. Common land.	
3. Dompura.		
4. Bhao.	‡ 1. Ahmal kalan.	
	2. Ahmal khurd.	

Of the 21 remaining khálsa estates 10 belonged to the three townships of Mungera, Bachhgaon, and Pali,§ whilst each of the other eleven|| was a separate mauza as well as a separate estate.

§ MUNGERA ...	{ Ajit patti.	1. Dhakpura.
	{ Ghatam „	2. Gopalpur.
	{ Ram „	3. Kosi.
	{ JaJan „	4. Kuthera.
	{ Indau „	5. Lwipur.
BACHHGAON...	{ Ratu.	6. Phondar.
	{ Bachhgaon.	7. Pura.
	{ Dungra.	8. Basálpur.
PALI ...	{ Lohra.	9. Sehan.
	{ Matah.	10. Son.
		11. Sanoth.

Sanoth, one of these eleven, has since been partitioned into two maháls with distinct boundaries, thus adding another village as well as another estate to the list.

At last settlement the subdivision of the pargana stood at three muáfi villages, each a distinct estate, and 20 khálsa villages composed of 42 estates. At present it is subdivided into two muáfi villages, Unchgaon and Pentha, and 22 khálsa villages containing 46¶ estates. The area and boundaries of the pargana have, however, remained unaltered.

¶ Ase has been lately partitioned into two maháls, and Phondar also into two.

The average annual collections of the first three settlements were—

1216 to 1218 fasli	...	...	...	Rs. 63,728
1219 to 1222 „	...	...	...	„ 62,218
1223 to 1236 „	...	...	...	„ 67,518 (jama of last year, Rs. 67,670.)

The revenue during these periods was according to Mr. Tyler (writing in 1841) paid with the greatest regularity, although the pargana had always been highly assessed compared with those adjacent to it. This was attributable in a great measure to the skill and industry of the Ját proprietors, who cultivated very largely themselves. Of the 42 khálsa estates, 28 were settled by Mr. Boddam under Regulation VII. of 1822 in 1237-38 at an increase of Rs. 4,653 on Rs. 41,429, the jama of 1236 fasli. The demand over the whole pargana was thus raised from Rs. 67,670 to Rs. 72,323, which fell at the rate of Rs. 2-10-0 per acre on the cultivated area. Mr. Boddam's assessments did not work well, and in 1239-40 fasli the revenue was collected with difficulty from the estates settled by him. A reduction of Rs. 848 was at once granted, but this was found insufficient, and at Mr. Tyler's revision under Regulation IX. of 1833 in 1244 fasli a further decrease of Rs. 2,074 was given in these 28 villages, thus bringing their jama down to Rs. 43,260. Mr. Tyler also reduced the revenue of the 14 villages which had not been touched by Mr. Boddam from Rs. 26,241 to Rs. 25,530. The total jama of the whole pargana as proposed by Mr. Tyler amounted to

Rs. 68,790—an increase of Rs. 1,120 on the demand of 1236 fasli. This increase, however, was only nominal, as between 1236 and 1244 fasli muáfi lands valued at Rs. 3,357 yearly jama had been resumed and brought under assessment. The revenue fixed on by Mr. Tyler was therefore, neglecting the resumed muáfi, in reality Rs. 2,247 below that current in 1236 fasli, and Rs. 2,095 under the average annual collection from 1223 to 1236 fasli. Mr. Tyler's assessment took effect from the beginning of 1245 fasli, the year of the great famine, in consequence of which the following remissions were necessitated :—

						Rs.	a.	p.
1245 fasli	...	...	...	...	...	19,199	0	0
1246 "	...	...	...	...	...	9,824	0	0
1247 "	...	...	...	...	...	1,059	9	6

Rs. 515 in addition was remitted in mauza Kosi on account of the injury caused by a violent hailstorm in 1248 fasli.

The pargana recovered rapidly from the effects of the famine, and in 1249 fasli the whole of the revenue assessed by Mr. Tyler was collected. In only one village (Ahmal khurd) was a rasadi jama required, commencing from Rs. 800 and rising gradually to Rs. 1,500 in 1251 fasli. Mauza Jhapra, which was formerly held on a revenue-free tenure, was resumed and assessed at Rs. 468 from 1247 fasli, thus raising the jama of the pargana to Rs. 69,258. Mr. Tyler's leases were granted only for 20 years, expiring in 1264 fasli, but his settlement has been extended to the present time. His leases were accepted by the proprietors in every instance but two, where farmers were easily found to engage.

The details of his survey were—

						Acres.
Village site and otherwise barren	...	...	...	...	...	2,522
Jágir	...	...	...	...	...	90
Old bánjar	...	...	...	...	...	2,783
New "	...	...	...	...	...	2,245
Cultivated	...	...	...	...	...	27,241
						<u>34,881</u>

The following quotations from Mr. Tyler's report embody all the important remarks made by him on assessment and rates :—

"The soil throughout the pargana is pretty uniform, and though there are some seven or eight villages of an inferior quality, it was not deemed necessary to form them into a separate and different class; the same rates have accordingly been applied to all, and the rental of each assumed therefrom. The soil of the pargana is superior to that of the adjacent parganas, and its means of irrigation are much more abundant, and though a portion of the water is strongly impregnated with soda, still the greater part is sweet and capable of producing the more valuable products, such as wheat, cotton, and sugarcane.

"Full enquiries have been made into the past and present condition of each village, the manner in which the assessment had been paid, and its effects. After taking the above into consideration and applying the average rates on irrigated and unirrigated, I determined on a jama for the whole pargana. This was again tested by the various modes pointed out by the Board, and finally Rs. 68,757 was fixed on as the aggregate assessment. The following were the rates assumed :—

		Acres.	Rent-rate. Rs. a. p.	Rental. Rs.	Revenue-rate. Rs. a. p.	Jama. Rs.
Irrigated	...	10,290	5 4 3½	54,201	3 10 7½	37,699
Unirrigated	...	6,951	2 10 1½	44,652	1 13 3½	21,058
Total	...	<u>27,241</u>		<u>98,853</u>		<u>68,757</u>

The present cultivated and irrigated areas are 32,506 acres and 16,524 acres—: increase of 19 and 60 per cent. respectively on Mr. Tyler's returns.

The current jama is Rs. 69,028. The changes from the settlement jama are as follows:—

<i>Increase.</i>	<i>Rs.</i>	<i>Decrease.</i>	<i>Rs.</i>
Resumed muáfi	... 12	Land taken up for road	... 69
		Ditto for canal	... 173
		Total	... 242
		Net decrease	... 230

Estimated assets at proposed rates are Rs. 71,090. I have finally assessed the pargana to a revenue of Rs. 72,560, which the zamíndars have accepted without a murmur.

This pargana has hitherto been fully assessed, and I could not in justice to the Ját communities, the hereditary owners of the greater portion of it, go higher than I have done.

#### PARGANA GUBARDHAN.

This pargana formed part of the territories ceded to the East India Company by treaty with Scindhia on the 30th November, 1803, but it was subsequently granted free of assessment to Kunwar Lachman Singh, a younger son of Rájá Ranjit Singh of Bhartpur, during his lifetime. It reverted in January, 1825 to the British Government, and was placed under the authority of the Magistrate of Agra, who made the collections during the years 1234 and 1235 fasli. In 1827 A. D. the revenue charge of the pargana was transferred to the Collector of Agra, who proceeded, under the provisions of Regulation VII. of 1822, to conclude a settlement with the village proprietors, extending from 1236 to 1247 fasli. The pargana then, as now, consisted of 15 distinct villages, three of which, Bhagosa, Mukhrai, and Mandaura, were, and continue to be, held revenue-free. In Sikitra one-quarter has always been muáfi to the Rájá of Bhartpur. The collections made by the Magistrate of Agra during 1234 and 1235 fasli amounted to Rs. 23,923 and Rs. 23,068 respectively. In 1827 A. D. Mr. Boddam, the Collector, fixed on Rs. 18,633 as the annual demand. This sum, it appears, was regularly and without difficulty realized for the first nine years of his settlement. In the tenth year, 1245 fasli, the pargana was visited by the most terrible famine on record, and in consequence of the deterioration produced by it the collections during the last three years of Mr. Boddam's settlement sunk to—

<i>Rs.</i>	<i>a.</i>	<i>p.</i>	
9,722	7	6	in 1245 fasli.
12,676	1	0	" 1246 "
15,489	13	0	" 1247 "

The greater part of the balances which accrued during that period was remitted by Government.

The settlement under Regulation IX. of 1833 was conducted by Mr. Tyler, Collector of Muttra, in 1839-40, and leases were granted by him for 30 years extending from 1248 fasli to 1277 fasli. The details of his survey of the khálsa villages compared with the details of Mr. Boddam's survey made in 1827 are as follows:—

	<i>Site of village or otherwise barren. Acres.</i>	<i>Jágir and service land. Acres.</i>	<i>Muáfi and khairát. Acres.</i>	<i>Culturable, not cultivated. Acres.</i>	<i>Recently thrown out of cultivation. Acres.</i>	<i>Cultivated. Acres.</i>	<i>Total area. Acres.</i>
Mr. Boddam's survey ...	2,715	256	2,738	4,324	...	6,618	16,551
Mr. Tyler's survey ...	1,460	159	634	1,850	1,286	10,663	16,052

Mr. Tyler, writing in December, 1840, remarked that the comparison of these figures showed most clearly that the parganas had improved greatly since Mr. Boddam's settlement, and that it had then completely recovered from the effects of the famine of 1245 fasli. Mr. Boddam's jama, as has been seen, was Rs. 18,683. To this must be added Rs. 2,758, the sum assessed on 1,778 acres of muáfi land subsequently

resumed: thus bringing the actual demand for 1247 fasli, the last year of his settlement, up to Rs. 21,441. On this Mr. Tyler took an increase of Rs. 1,049-9-0, fixing his standard jama at Rs. 22,489. In only one instance, muaza Nibgaon, did he allow a progressive assessment for four years, by reason of the large area of arable land which had been unavoidably thrown out of cultivation.

Mr. Tyler's manner of assessment is best described in his own words :—

"In order to bring together villages similar in soil and productiveness, the pargana has been divided into two classes, and I have applied to each class a general set of rates fixed on irrigated and unirrigated lands instead of on bára, manjha, and barha, which are little attended to by the zamíndars in granting their pattahs, which are generally ' bilmukta,' specifying merely the extent of the land and the aggregate amount to be paid. The rent-rates are the same as those in force in adjoining parganas ; these have again been tested by various methods and found to be as accurate as general rates can well be."

The following table exhibits his soil areas, assumed rent and revenue rates, and deduced rentals and jamas for each class of soil :—

	Acres.	Rent-rate.			Rental.			Deduced revenue-rates.			Jama.		
		Rs. a. p.			Rs.			Rs. a. p.			Rs.		
Irrigated for both classes	2,132	5	4	3	11,229			3	10	1½	7,748		
Unirrigated for 1st class	3,494	2	10	1	9,201			1	13	1	6,349		
Ditto for 2nd class	5,037	2	6	8	12,163			1	10	7½	8,392		
Total	10,663				32,593						22,489		

In fixing on the revenue realizable from the whole pargana, Mr. Tyler adhered rigidly to the amount resulting from the application of his deduced revenue-rates, but in his village assessments he allowed himself a certain latitude as circumstances warranted. He arranged for the payment of stipulated salaries to the village chaukidars, and made over the lands formerly set apart for that purpose to the zamíndars.

The land revenue, exclusive of cesses, of the last year of the expired settlement, was Rs. 22,321-4-6.

The changes from the settlement jama have been —

Increase.			Decrease.		
	Rs.			Rs. a. p.	
Resumed muáfi	125		Land taken up for roads	88 11 6	
			Ditto for canal	3 0 0	
			Land assessed at last settlement, but since released	201 0 0	
			Total	292 11 6	
			Net decrease, Rs. 167-11-6.		

Half-estimated assets at my proposed rates amount to Rs. 25,780, and I have assessed at an initial revenue of Rs. 24,540, rising gradually to Rs. 25,640 in four years :—

	Rs.				
1st year	...	...	...	...	24,480
2nd "	...	...	...	...	24,680
3rd "	...	...	...	...	25,080
4th "	...	...	...	...	25,280
5th "	...	...	...	...	25,580

My standard jama is thus only Rs. 3,254, or 15 per cent. in excess of the old demand. Cultivation has increased by 1,837 acres, or 17 per cent., since last settlement, and the irrigated area has risen from 2,132 to 3,550 acres during the same period.

#### PARGANA SONSA.

This pargana was attached to the tahsildar of Aríng at last settlement, and then consisted of 24 villages, two of which (Umri and Naguri) were the property of the Rája of Bhartpur, one (Maghera) a revenue-free tenure, and the remaining 21 were khalsa or revenue-paying villages divided into 25 máhals.

The two villages which belong to the Rájá of Bhartpur are now excluded from our jurisdiction. Maghera is still revenue-free, and the 21 khalsa villages remain unchanged, but are now broken up into 30 máhals instead of 25. The average annual collections for the first four settlements were :—

					Rs.
1st settlement	...	...	...	...	21,000
2nd "	...	...	...	...	17,973
3rd "	...	...	...	...	21,507
4th "	...	...	...	...	25,993

and there is nothing to show that they were not punctually realized. The fifth settlement was made by Mr. Collector Boddam under the provisions of Regulation VII. of 1822 at an annual jama of Rs. 27,374. His leases in 19 villages were to expire at the close of 1298 fasli ; in one, Jachaunda, in 1247 fasli, and in another, Datiya, in 1249 fasli. Subsequent to his settlement some muáfi lands were resumed and assessed to a revenue of Rs. 273, and the village of Morra, which had hitherto been held revenue-free, was also resumed and Rs. 1,500 assessed on it ; in this manner his jama was eventually raised to Rs. 29,147. Up to 1244 fasli the revenue was collected without much difficulty, but the great famine of 1245 fasli tried the more heavily assessed estates severely, and necessitated a remission of Rs. 11,877 for that year, and of Rs. 2,611 for the following year, 1247 fasli.

The revision of settlement under Regulation IX. of 1833 was undertaken by Mr. Tyler, and brought by him to a conclusion in 1840 A.D. He accepted Mr. Boddam's assessment over the whole pargana as a fair one, and devoted himself to rectifying the unevenness in individual cases which the hard times of 1837-38 and 1839 had brought to light. This he accomplished with an average amount of success. Rasadi jamas were proposed by him for some villages on account of their deteriorated condition, and in four cases where he granted reductions he caused them to have retrospective effect—in one instance for two years, and in the other three for one year. In the recently resumed village of Morra he raised the demand by Rs. 400. His standard jama, which was first collected in full in 1252 fasli, was Rs. 29,547, or Rs. 400 (owing to Morra) in excess of the revenue realized in 1244 fasli.

The demand of the last year (1875-76) of the expired settlement was Rs. 29,306. Half-estimated assets at my proposed rates pointed to a revenue of Rs. 38,350.

The changes during the settlement have been as follows :—

Increase.			Decrease.		
		Rs.			Rs.
Resumed muáfi	...	85	Land taken up for roads	...	18
			Ditto for canal	...	308
			Total	...	326
			Net decrease, Rs. 241.		

My settlement is a progressive one, commencing at Rs. 33,813 and rising gradually to Rs. 37,413 in 1880-81.

					Rs.
1st year	...	...	...	...	33,813
2nd "	...	...	...	...	34,713
3rd "	...	...	...	...	35,613
4th "	...	...	...	...	36,513
5th "	...	...	...	...	37,413

Cultivation has increased from 11,373 to 16,909 acres since Mr. Tyler's settlement, and irrigation from 3,048 to 9,804 acres during the same period. There are still 1,270 acres of culturable waste. The local cesses on the revenue-free village of Maghera have been raised by me from Rs. 207-5-1 to Rs. 240.

Summary of financial results of the present revision of settlement for the whole tahsil.

The financial results of the revision of settlement just completed are over the whole tahsil briefly as follows :—

			Rs.	a	p.
Jama of the last year of the expired settlement	...	...	2,15,237	0	6
Proposed standard jama	...	...	2,49,268	0	0
Increase	...	Rs. 34,030-15-6,	or 16 per cent.		



Rentals before and after  
enhancement.

At preparation of rough records the recorded rental was Rs. 2,83,006, and the interpreted rental Rs. 3,41,140. The following statement shows the rental after the conclusion of the enhancement work :—

Description.	After completion of enhancement.		
	Area.	Rent.	Rate.
	Acres.	Rs.	Rs. a p.
Sir ... ..	29,930	30,432	...
Ex-proprietary tenants ... ..	545	2,528	4 10 2
Land held by resident tenants with occupancy rights ... ..	44,847	1,55,092	3 7 4
Ditto by non-resident tenants with occupancy rights ... ..	10,874	35,587	3 4 6
Ditto by resident tenants-at-will ... ..	24,174	93,262	3 13 9
Ditto by non-resident tenants-at-will ... ..	7,188	27,811	3 13 11
Rent-free land granted by zamindars ... ..	1,461	115	...
Cultivated gardens, &c., ... ..	2,776	598	...
Total ... ..	1,21,790	3,95,425	...

This gives an interpreted rental of Rs. 4,36,026, or a rent-rate of Rs. 3.58 the acre.

M. A. McCONAGHEY.







[illegible]

General Statement of Tahsil Muttra—(continued.)

Number.	Village.	STATISTICS OF AREA.										Incidence of present revenue on																	
		NOT ASSESSABLE.					ASSESSABLE.					Total assessable.					Total cultivated.												
		Cultivable land unutilized.					Cultivated.					Total assessable.					Total cultivated.												
		Revenue free.	Occu- pied by water.	Barren waste.	Total.	Groves.	Old waste.	Lately thrown out of cultiva- tion.	Irrigated.	Dry.	Total cultivated.	Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and cultivable) per acre.	Incidence of present revenue on total cultivated area per acre.															
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
PARGANA SONKH.																													
1	Ahmal kalan	3,231	2,634	1,750	1,700	1,700	1,600	776	31	10	8	25	74	5	34	...	448	215	863	702	2	1	0	2	4	6	2	6	9
2	Ditto, khurd	1,597	1,597	1,500	1,500	1,500	1,500	780	...	8	4	18	30	3	68	...	504	170	674	750	2	0	10	2	2	2	2	5	11
3	Bachgaon	4,595	4,670	4,700	6,300	6,300	6,300	3,769	...	36	7	115	158	3	217	...	1,188	2,303	3,391	3,611	1	12	10	1	14	1	2	0	1
4	Ditto, mahal Indan	1,811	1,687	1,700	2,300	2,300	2,500	1,350	...	21	7	27	55	1	30	...	535	749	1,284	1,335	1	12	9	1	13	1	1	15	1
5	Ditto, ditto Ratu	675	644	650	700	700	900	434	...	5	...	16	31	5	16	...	260	142	392	413	1	13	6	1	15	0	2	0	7
6	Jhapra	...	...	...	468	468	480	331	...	3	1	5	9	1	41	...	86	199	276	323	1	6	9	1	4	4	1	10	1
7	Dungar pattii, mahal Aja	518	518	517	575	575	530	217	...	3	1	3	7	...	4	...	146	60	206	210	2	7	1	2	8	5	2	0	2
8	Do., mahal Ase, 164 bis,	1,161	1,161	1,161	1,075	871	86	406	...	5	1	16	22	6	10	...	136	232	368	384	2	1	11	2	8	10	2	5	4
9	Ditto, do. do. 34 biswas,	...	...	...	1,215	1,214	1,150	559	...	33	1	3	4	...	5	...	20	71	91	98	2	1	0	2	2	5	2	3	2
10	Ditto, mahal Purna	1,353	1,353	1,350	1,215	1,214	1,150	559	...	21	24	68	8	5	...	...	211	267	478	491	2	0	11	2	5	5	2	6	5
11	Ditto, ditte Saijua	1,403	1,403	1,400	1,500	1,498	1,450	631	...	24	6	21	51	13	7	...	309	251	560	580	2	4	9	2	8	0	2	9	5
12	Ditto, ditto Tasiya	...	...	1,307	1,200	1,200	1,300	855	...	11	5	14	30	5	3	...	888	229	517	525	2	2	7	2	4	7	2	5	2
13	Dhakpura	500	500	700	750	750	780	419	...	...	...	2	2	...	68	...	204	143	347	417	1	13	9	1	13	11	2	3	11
14	Gopalpur	265	265	300	250	250	300	227	...	...	...	4	4	7	14	...	94	108	202	223	1	5	1	1	5	7	1	7	9
15	Koi	3,200	3,200	3,200	3,000	2,973	3,400	1,553	...	11	8	92	111	1	118	...	463	1,250	1,713	1,842	1	11	10	1	13	6	1	15	9
16	Kuthra	750	750	650	1,000	1,000	1,150	629	...	6	1	17	24	4	13	...	341	347	598	605	1	13	3	1	14	5	1	15	4
17	Lalpur	2,050	2,050	2,050	2,400	2,322	2,880	1,704	...	18	5	106	139	10	261	...	641	659	1,310	1,575	1	10	10	1	13	1	3	2	11
18	Lohra pattii	3,668	3,668	3,400	3,800	3,799	3,500	1,533	...	24	8	52	84	1	31	...	703	733	1,435	1,449	2	4	6	2	6	0	2	7	3
19	Mahna pattii	2,432	2,432	2,200	2,900	2,900	2,900	1,043	...	14	10	26	50	15	99	...	545	579	993	993	2	1	9	2	3	5	2	8	0
20	Mungera mahal Aji pattii	2,542	2,542	2,000	2,100	2,100	2,150	1,046	...	4	6	40	50	2	62	...	498	432	930	996	2	0	10	2	2	2	2	4	11
21	Ditto, do. Ghatam pattii	2,099	2,099	1,800	1,780	1,730	1,800	788	...	2	8	30	30	1	29	...	369	369	728	758	2	4	7	2	3	5	11	2	7
22	Ditto, do. Jajan pattii	3,208	3,208	2,829	2,829	2,829	2,900	1,375	...	20	13	58	91	30	39	...	550	675	1,325	1,384	2	1	9	2	4	2	3	5	10
23	Ditto, do. Ram pattii	2,851	2,851	2,800	2,600	2,600	2,650	1,151	...	50	15	30	95	7	63	...	639	847	998	1,056	2	4	10	2	8	2	2	10	6
24	Mahna pattii, mahal Aza,	With	Nadmi	Patti.	45	45	60	41	...	...	...	8	8	...	...	...	34	9	33	33	1	7	5	1	13	1	1	13	1

[illegible]

General Statement of Tahsil Muttra—(concluded.)

STATISTICS OF AREA.																														
Number.	Village.	NOT ASSESSABLE.					ASSESSABLE.					Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and cultivable) per acre.	Ra. a. p.																
		Revenue free.	Cultivable land unutilized.				Total.	Groves.	Old waste.	Lately thrown out of cultivation.	Cultivated.																			
			Site.	Occupied by water.	Barren waste.	Irrigated.					Dry.				Total cultivated.															
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
		Highest revenue of 1st settlement.		Highest revenue of 2nd settlement.		Highest revenue of 3rd settlement.		Revenue of last settlement.		Average of last five years.		Present revenue.		Total area in acres.		PARGANA GOBARDHAN—(concluded).					Es. a. p.		Ra. a. p.							
8	Mahammadpur	...	...	...	...	...	...	...	...	...	...	...	...	...	573	5	8	2	19	34	5	60	...	288	216	474	539	1 12 0	1 13 8	2 1 9
9	Nibgaon	...	...	...	...	...	...	...	...	...	...	...	...	...	2,173	41	20	8	61	130	19	407	1	201	1,415	1,616	2,043	1 5 4	1 6 8	1 12 8
10	Pali Brahmanan	...	...	...	...	...	...	...	...	...	...	...	...	...	247	...	4	1	6	11	...	7	...	41	188	229	236	1 13 4	1 13 6	1 13 4
11	Pali Gorwa	...	...	...	...	...	...	...	...	...	...	...	...	...	247	...	4	1	10	15	...	19	...	53	160	213	232	1 12 1	1 12 11	1 15 6
12	Radhakund taraf Gobardhan,	...	...	...	...	...	...	...	...	...	...	...	...	...	1,440	80	18	42	55	165	14	314	...	130	817	947	1,275	1 5 8	1 6 5	2 0 11
13	Radhakund taraf Konai	...	...	...	...	...	...	...	...	...	...	...	...	...	1,379	...	36	11	32	69	33	323	2	118	835	953	1,310	1 6 7	1 7 10	2 3 9
14	Sakarwa	...	...	...	...	...	...	...	...	...	...	...	...	...	1,683	13	12	5	44	74	3	186	...	536	833	1,371	1,559	1 11 5	1 12 9	2 3 9
15	Sakitra 15 biswas	...	...	...	...	...	...	...	...	...	...	...	...	...	784	39	1	11	56	107	3	100	1	87	486	673	677	1 9 6	1 13 6	2 2 11
Total Khālas		...	...	...	...	...	...	...	...	...	...	...	...	...	15,980	386	239	86	534	1,347	189	2,024	29	8,550	8,950	12,500	14,742	1 9 7	1 11 9	2 3 9
16	Bhagosa, 17½ biswas	...	...	...	...	...	...	...	...	...	...	...	...	...	1,464	...	9	1	37	47	4	279	6	373	755	1,126	1,417	...	...	...
17	Ditto, 2½ do.	...	...	...	...	...	...	...	...	...	...	...	...	...	192	...	1	...	7	8	...	28	...	43	115	157	185	...	...	...
18	Mukhtai, 10-12½ do.	...	...	...	...	...	...	...	...	...	...	...	...	...	525	...	8	4	15	35	1	13	...	125	351	476	490	...	...	...
19	Ditto, 5-12½ do.	...	...	...	...	...	...	...	...	...	...	...	...	...	268	...	...	...	4	4	2	13	...	97	148	245	259	...	...	...
20	Ditto, 3-15 do.	...	...	...	...	...	...	...	...	...	...	...	...	...	1,916	...	...	...	...	...	1	13	...	17	144	161	175	...	...	...
21	Mandaura	...	...	...	...	...	...	...	...	...	...	...	...	...	269	...	...	...	23	47	4	220	2	318	634	942	1,168	...	...	...
22	Sakitra, 5 do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45	4	11	60	49	38	...	71	51	132	209	...	...	...
Total, unassd		...	...	...	...	...	...	...	...	...	...	...	...	...	4,106	23	71	10	97	201	61	693	6	1,033	2,198	2,231	3,903	...	...	...





## CHHÁTA.

General description—Communications—Physical features—Detail of areas—Natural soils—Sources of irrigation—Constitution of the pargana—Cultivation—Crop statistics—Cultivating statistics—Cultivation by caste—Taxes—Transfers—Proprietary statistics—Castes—Population statistics—Ploughs and plough cattle, &c.—Fiscal history—Soils—Rates—Estimated rentals at assumed rates—Financial results—Rentals after enhancement.

THIS is one of the three Cis-Jumna parganas of the district, and is a level plain extending from the river to the hills on the Bhartpur border.

**General description.** It is bounded on the north by pargana Kosi, and on the south by pargana Muttra. It is rectangular in shape, and its breadth from east to west averages 23 miles, whilst its average length from north to south is only 11 miles. Its local capital is at Chhāta, on the metalled road from Muttra to Delhi, whither the headquarters were transferred from Sahar after the mutiny on account of the advantages afforded by the imperial sarai as a defensive position. At the period to which the *Ain-i-Akbari* refers Sahar gave its name to one of the Sirkars of the Agra Suba. In Sirkar Sahar there were seven mahāls forming one dastūr. The mahāl Sahar was then of very large extent, and was not broken up until the time of the Jāts, when the parganas of Sahar, Shergarh, Shahpur, Kosi, and Sonsa were formed from it. When received from Scindhia in 1803 Sahar, which then included part of Arīng, was given to the Rāja of Bhartpur, and Shergarh, which included part of Kosi, to Balla Bai, as jāgir. On the defeat of Bhartpur in 1805 Sahar was retaken, and by Regulation XII. of 1806 annexed to the Agra district. It was immediately made over in jāgir to Scindhia's wife and daughter, to be resumed in 1808 finally in lieu of a money payment. At last settlement the parganas of Sahar and Shergarh formed the Sahar tahsil. During the currency of the settlement they have been amalgamated into one tahsil, Chhāta. The Agra canal passes through the pargana from north to south, entering it at Bhadāwal, skirting Sahar, and leaving it near Bharna khurd, dividing it into two unequal portions, of which the eastern is more than double the size of the western. The latter is traversed by the Kosi distributary, and the former by the Sahar and Shergarh distributaries.

There are two metalled roads in the pargana—the Muttra and Delhi road and the Chhāta and Shergarh road. There are also four second class metalled roads: (1) that from Chhāta to Gobardhan, (2) that from Sahar to Bindraban, (3) that from Jait to Shergarh, continued to Nob Jhil, (4) that from Shergarh to Kosi. The Chhāta and Shergarh road has now been left for some years without repair. There are in addition to these a number of excellent village roads which, on account of the exceptionally dry character of the country, are open to traffic the whole year round. It is to be noted that all the district roads above mentioned are confined to that portion of the pargana lying between the canal and the Jumna.

Between the Bhartpur hills on the extreme west and the range of sand and ravines which slope towards the valley of the Jumna, the surface of the pargana is exceptionally level and uniform.

**Physical features.**

From the hills and their sand ranges on the west, there is not a single river or even stream to break the surface of the country, and a month after the cessation of the rains there is no body of water larger than a pool to be met with. The shallow depressions locally known as "dahars" are only a few feet below the level of the country, and are drained off or dry up in time for rabi cultivation. The only one marked line of drainage is that which, entering the pargana at its extreme north-west corner, passes through the opening between the Barsana and Nandgaon hills, and turning to the south, leaves it at the village of Hathiya. This depression is liable to floods, which come down from the Alwar and Bhartpur territories at long and uncertain intervals, the last flood being in 1873-74. The slight damage caused to the standing crops

is, however, not to be compared to the great gain which the soil derives from the deposits left. This depression is one of the few places in the pargana in which cane was grown prior to the introduction of the canal. Three miles east of this drainage line, and parallel to it runs a narrow belt of sand which rises slightly above the level of the country. It enters the pargana at Khaira on the north, and leaves it at Dahraoli on the south. From this belt to the Jumna system of sandhills, the only marked line of light soil which breaks to any extent the dead level of the country is that running along the Delhi road, and even this is of trifling importance. As the Jumna is approached the soil becomes considerably lighter, until this lightness culminates in the almost pure sand which borders on the valley of that river. Where the course of the river is straight, the sandy soil is confined to a single belt extending but a short distance from the cliff; but in the large bend between Shergarh and Syara a perfect network of sandhills is developed, which extend often to three miles from the valley. The conformation of the land, however, shows that the river at this spot has not always kept its present course, for a marked depression can be distinctly traced from the village of Bahta through Agaryala, Jaoli, Dalauta, and Gangrauli, where again it joins the present channel.

The Jumna ravines in this pargana are not by any means such an important physical feature as in the parganas further south. They are nowhere wide, deep, or rugged, and in the bend of the river and in another place further south they entirely disappear. Where they are wanting, cultivation is carried on up to the very cliff.

The total area is 161,611 acres, or 252 square miles; of these 135,304 acres, or 211 square miles, are actually cultivated, and 16,587 acres, or 26 square miles, culturable. The revenue-free area, including 347 acres of groves, is 21,985 acres, or 34 square miles.

	Total area.	NOT ASSESSABLE.					ASSESSABLE.						
		Muafi.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Out of cultivation.		Cultivated.			Total assessable.
								Culturable waste.	Fallow.	Irrigated.	Dry.	Total cultivated.	
Revision...	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Present ...	161,493	21,702	1,398	804	9,809	33,713	226	14,878	6,225	19,233	87,217	106,450	127,779
	161,611	21,628	1,039	1,225	6,212	30,114	347	13,732	762	22,960	86,696	116,656	131,497

The general soil of the pargana is a light but strong loam, similar to that of the best villages in Muttra. It contains a sufficient admixture of sand to render it friable and easily worked, whilst there is enough clay in its composition to give it body. It varies, however, within certain narrow limits, the villages round Nandgaon being examples of the more sandy, and those round Sahar of the mere clayey description; whilst in the tract from Chhāta on the north to Naugawan and Taraoli on the south it is seen in its highest excellence. The exceptions to this general soil are to be found in the sand ranges above described and in a few isolated patches which have no reference to any general system. The Jumna khādar is, except in the bend of the river from Shergarh to Bahta, and in the south-east from Basai Buzurg to the Muttra border, nowhere extensive. The distinctive line of the bāngar and khādar has been drawn with reference to possible future alterations from fluvial action, and therefore in some places includes in the khādar land, which, from its similarity to the bāngar soils, has been assessed at bangar rates. The soil of the khādar, properly so called, is of course purely alluvial, and is of the same general character as the Jumna khādar elsewhere. It varies from pure white sand to a rich and firm dark loam, which retains for the most part sufficient moisture to render irrigation unnecessary; where, however, it is thought desirable to irrigate, shallow kucha wells can be sunk at a trifling cost.

Irrigation from jhils is unknown, as the shallow pools scattered over the country dry up too quickly to be of any use. Tank water is nearly always reserved for the cattle during the hot weather; in fact the villagers are restrained by religious scruples from applying it to their fields. Streams are unknown, and the Jumna flows in too deep a bed to permit of its water being utilized, except in a few khadar fields. The only sources of irrigation are therefore wells and the canal. Under the orders of Government I have refrained from recording canal irrigation. The depth of water varies considerably. In the central table-land which forms the bulk of the pargana it ranges from 40 to 60 feet. Along the hills on the west water is found at from 25 to 40 feet; whilst in the uplands along the Jumna, from Pīrpur to Basai khurd, it is not much more than 20 feet from the surface. In the whole of the eastern portion of the pargana, within a distance of seven miles from the river Jumna, and, curiously enough, almost coterminous with the country occupied by the Gorwas and Gūjars, the well water is for the most part sweet. Over the rest of the pargana, with the exception of a few villages under the Bhartpur hills, and in the sand ranges already described, the water is brackish. Sweet and brackish are the broad distinctions, but besides these there are various varieties of water recognized. In the centre of the pargana, where the water is found at a great depth from the surface, kucha wells are comparatively rare; but even here in some villages where the subsoil is superior and the cultivators enterprising, they are dug with successful results. Some wells are now in work which were constructed before the last settlement; for instance, in Amra there is a well which was used till 1872 which the zamindars allowed was dug before Bhartpur fell (*jab Bhartpur tufi*), 50 years ago; and in Naugawan the average age of existing kucha wells is 15 years. Bordering on the Jumna and in some of the villages near the hills, irrigation from kucha wells is much more resorted to; for example, Bahta and Mahrana, on the two extremes of the pargana, are studded with wells of this description. In these tracts "ajhar" wells (lined with twigs) are sunk; but often here, and always in the remainder of the pargana, on account of the great depth, wells lined with wooden cylinders (*garwāri*) are more resorted to. Another instance of the durability of these kucha wells is to be seen in Mahrana, where, from the preservative character of the subsoil, the *garwāris* last so long that it is found worth the cost to supplement the wooden cylinder by a superstructure of masonry. The total number of masonry irrigation wells in use is 848, and of kucha wells 2,098. Of the kucha wells 1,156 are supported by a wooden cylinder, 887 by a cylinder of withies, while 55 are altogether unprotected; 1,672 of the wells are returned as containing absolutely sweet water, 558 as salt, 302 as brackish, and the remainder as of various descriptions.

The irrigation areas of last settlement are useless for general comparison, as the revenue-free area was not then measured, and nearly the whole of the khadar was recorded as irrigated; but taking the khālsa area alone, we find that the area recorded as irrigated has risen in this period from 12,423 to 27,922 acres, and allowing for the fact that in the former area almost all the khadar is included, and in the latter none (khadar rates not depending on wet or dry), the increase will be seen to be very large.

The details of the irrigated areas at the three periods of the settlement, revision of records, and now, are as follows:—

		Cultivated area. Acres.	Irrigated area. Acres.	Percentage of irrigation to cultivated area.
Last settlement, the then khālsa only	...	95,211	12,423	13 per cent.
Revision, khālsa only	...	106,480	19,288	18 "
Now... { khālsa	...	116,656	29,900	26 "
{ muāfi	...	18,648	4,961	27 "

Constitution of the pargana.  
and 97 khālsa.

This pargana is formed of the old parganas of Sahar and Shergarh, and consists of 111 villages, 14 of which are muāfi

At last settlement pargana Sahar comprised 64 khálsa and 11 muáfi villages. Of the latter, three (Ajhai Buzurg, Bhadáwal, and Palikhera) were resumed by the Settlement Officer, but Ajhai Buzurg was afterwards released, and two villages were added by him—Bajna from Muttra and Bhaigaon from Shergarh—thus bringing the khálsa villages to 68 and the muáfi to 9. At the settlement Shergarh consisted of 30 khálsa and 6 muáfi villages. Bhaigaon was shortly afterwards transferred to Sahar, thus reducing the number of the khálsa villages to 29. Since then no changes in boundaries have taken place. One muáfi village, Siyara, was resumed in 1841 on the death of the muáfidar, thus reducing the number of the muáfi villages to 14. Some nazúl land in Sahar was formerly called a separate village, it has now been included in Sahar itself. The number of the khálsa villages thus stands at 97 as before. In

\*Chamargarhi.  
Bazidpur.  
Hazara.  
Jaitpur.

consequence of the demarcation of the bángar from the river valley, there are now 107 bángar villages and 21 khádar maháls, four\* of the latter being entire villages of last settlement.

Cultivation. The cultivation is on the whole poor. This is owing to three causes—

- 1st.—The character of the majority of the people themselves.
- 2nd.—The lightness of the current assessment, and the exceptionally low rates which prevail and render any great exertions unnecessary.
- 3rd.—The scantiness of the population, which gives to each cultivator a larger plough area than he can properly manage.

There are some striking exceptions to the general rule, as the Játs of Mahrana, Chháta, and Nandgaon, the Malkanas of Nangaon and Undi, the Mális of Hazara, and the Gorwas of Agaryala and Bahta. The Ahiwasis and Gújars are the worst cultivators, the former devoting most of their attention to the carrying trade, and the latter still preserving their traditional character for thieving. The latter in the confiscated villages now owned by the Ráni of Háthras are compelled by a system of high rents to devote more labour to the land, a change in their habits which they still find irksome. The Gorwas may be taken as the average cultivators of the pargana.

Crop statistics. The following crop statistics for the pargana prove clearly three points:—

- 1st.—The natural goodness of the soil.
- 2nd.—The absence of irrigation.
- 3rd.—The carelessness of the cultivation.

More than half the whole crop area is occupied by juár and cotton, nearly two-thirds of the whole is sown to kharíf, while gram and bejhar form more than three-fourths of the rabi cultivation. Juár and cotton require good natural soil; but they, as well as gram and bejhar, exact but little trouble or skill in their cultivation, and, above all, are unirrigated. Bejhar especially is a crop well fitted for a lazy cultivator who trusts rather to the chances of the weather than to his own exertions, for heavy winter rains will ensure him good barley, while light winter rains will ensure him good gram. On the other hand, the area covered with bájra is comparatively small, although it is nearly double that under wheat. This crop is grown largely under the hills and among the ravines, and but little elsewhere. The area under dofasli is only 2·9 of the whole—a very small proportion. The particulars when examined enforce the same conclusions. The more valuable crops, as sugarcane, tobacco, indigo, and vegetables, are practically unknown, and even of the 5,348 acres under wheat, nearly one-third is grown in the khádar land, where irrigation is not required. Cotton, in fact, is the only valuable crop which is extensively patronized. The area under arhar is very small, only 5·14 per cent. of the whole—that is, less than one-fourth of the proportional area recorded as sown to this plant in the Duáb parganas of Sádabad and Jalesar. This difference probably arises more from the differing customs of the people than from differences in soil or cultivation.

## Bangar.\*

KHARIF.				RABI.				GARDEN CROPS OR KACHHIYANA.						
Crop.	Area.			Percentage of whole crop area.	Crop.	Area.			Percentage of whole crop area.	Crop.	Area.			Percentage of whole crop area.
	Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.	
Sugarcane ...	93	1	94	0.07	Wheat ...	3,553	280	3,833	2.88	Tobacco ...	16	99	115	0.08
Cotton ...	20,670	560	21,170	15.95	Barley ...	3,333	1,121	4,454	3.36	Other crops.	95	22	117	0.09
Indian-corn, ...	49	384	433	0.33	Bejhar ...	16,090	307	16,297	12.28	Total ...	11	121	232	0.17
Juar ...	48,331	1,164	49,495	37.28	Gram ...	31,495	1,703	33,198	17.47					
Bajra ...	8,209	1,500	9,709	7.31	Gojai ...	452	117	569	0.43	Area under arhar, 8,815 acres.				
Rice ...	3	15	18	0.01	Other crops,	95	248	343	0.26					
Indigo ...	4	...	4	...										
Hemp ...	43	13	56	0.04										
Khurfi ...	1,137	122	1,266	0.95										
Other crops,	1,511	91	1,602	1.21										
Total ...	80,050	3,797	83,847	63.15	Total ...	45,018	3,676	48,694	36.63					

## Khadar.

KHARIF.					RABI.					GARDEN CROPS OR KACHHIYANA.				
Crop.	Area.			Percentage of whole crop area.	Crop.	Area.			Percentage of whole crop area.	Crop.	Area.			Percentage of whole crop area.
	Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.	
Sugarcane ...	35	...	35	0.63	Wheat ...	1,491	34	1,515	27.14	Tobacco ...	...	11	11	0.19
Cotton ...	477	22	499	8.94	Barley ...	528	52	580	10.49	Melons ...	80	5	85	1.48
Indian-corn, ...	2	30	32	0.57	Bejhar ...	693	28	721	12.92	Other crops.	77	5	82	1.48
Juar ...	585	69	654	11.72	Gram ...	144	39	183	3.28					
Bajra ...	367	69	436	7.81	Gojai ...	393	31	424	7.63					
Hemp ...	2	5	7	0.13	Other crops,	43	13	56	1.00					
Khurfi ...	125	11	136	2.43						Total ..	157	19	176	3.16
Other crops,	133	3	136	2.26										
Total ...	1,716	209	1,925	34.49	Total ...	3,291	190	3,481	62.36	Area under arhar, 107 acres.				

Total crop area bangar and khadar both 138,355 + fallow 955 = 139,310

Deduct dofaali 4,006 + cultivated muafi 18,648 = 22,654

Net khalsa cultivation ... 116,656

## Cultivating statistics.

The following statements show the details of holdings in the khalsa when the rough records were prepared :—

Description.	At preparation of records.				
	Number of holders.	Area.	Rent.	Average holding.	Rate.
Sir ...	5,613	Acres.	Ra.	Acres	Ra. a p.
Ex-proprietary tenants ...	71	46,036	90,759	82	...
Land held by resident tenants with occupancy rights	5,568	289	858	4.1	2 15 6
Ditto by non-resident tenants with occupancy rights	967	30,661	94,319	5.3	3 1 2
Ditto by resident tenants-at-will	4,071	4,181	12,763	4.2	3 0 9
Ditto by non-resident tenants-at-will	1,610	27,004	70,853	6.6	2 10 0
Rent-free land granted by samindars	536	6,779	21,128	4.2	3 1 10
Cultivated gardens, &c.	...	1,289	...	2.4	...
Total	18,486	354	7	...	...

\* The proportions of the crop returns of the last settlement give 63.1 per cent. of kharif and 36.9 per cent. of rabi; 16.5 per cent. was under cotton, 1.7 per cent. under wheat, and 5.3 per cent. under barley.

More than one-third of the whole cultivators are owners of sîr, while considerably under one-third are tenants-at-will. The average cultivation of proprietors is, however, only 8 acres.

A similar return for the muâfi portion of the pargana is also added :—

Description.	At preparation of records.				
	Number of holders.	Area.	Rent.	Average holding.	Rate.
		Acres.	Rs.	Acres.	Rs. a. p.
Sîr ... ..	659	6,013	12,035	9.1	...
Ex-proprietary tenants ..	13	151	455	11.6	3 0 3
Land held by resident tenants with occupancy rights ...	901	5,645	15,382	6.2	2 11 8
Ditto by non-resident tenants with occupancy rights, ...	252	923	2,297	3.7	2 7 10
Ditto by resident tenants-at-will ...	488	3,919	10,208	8.0	2 9 8
Ditto by non-resident tenants-at-will ...	99	555	1,516	5.6	2 11 8
Rent-free land granted by zamîndars ...	91	214	...	2.3	...
Cultivated gardens, &c....	...	62	...	...	...
Total ... ..	2,503	17,462	41,893	...	...

#### Cultivation by castes.

Caste.	Str.			Ex-proprietary tenants.					Tenants with occupancy rights.					Tenants-at-will.				
	Number.	Area.	Average hold- ing.	Number.	Area.	Rent.	Average hold- ing.	Rate of rent.	Number.	Area.	Rent.	Average hold- ing.	Rate of rent.	Number.	Area.	Rent.	Average hold- ing.	Rate of rent.
		Acres.			Acres.	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.
Brahmans ...	2,143	15,080	7.0	26	55	201	2.1	3 10 6	1,545	7,610	21,303	4.9	2 12 9	1,055	5,582	16,058	5.3	2 14
Jâts ...	668	4,698	7.0	14	70	231	5.0	3 4 10	493	3,481	9,720	7.1	2 12 8	355	2,317	7,882	6.5	3 6 5
Thákurs ...	2,107	19,616	9.3	22	123	306	5.6	2 7 10	2,212	12,192	39,050	5.5	3 3 3	1,409	10,664	23,815	7.6	2 2 8
Muhammadans ...	183	857	5.3	1	4	1.0	4.0	0 0	339	1,727	5,034	5.1	2 14 7	468	2,598	8,483	5.5	3 4 3
Chamárs ...	13	40	3.1	...	...	...	...	...	790	4,054	12,637	5.1	3 1 10	929	4,929	14,089	5.3	2 13 9
Baniyas ...	53	280	4.4	...	...	...	...	...	49	188	510	3.8	2 11 5	93	360	1,042	3.9	2 14 4
Garariyas ...	1	1	1.0	...	...	...	...	...	106	579	2,037	5.5	3 8 3	123	629	1,712	5.1	3 11 7
Barbais ...	2	3	1.5	...	...	...	...	...	66	207	705	3.1	3 6 6	116	485	1,443	4.2	2 15 7
Káchhis ...	...	...	...	...	...	...	...	...	44	200	720	4.5	3 9 7	44	272	1,008	6.2	3 11 4
Nais ...	5	16	3.2	...	...	...	...	...	53	164	458	3.1	2 12 8	77	214	543	2.8	2 8 7
Mallahs ...	...	...	...	...	...	...	...	...	68	383	1,369	5.6	3 9 2	165	627	2,328	3.8	3 11 5
Géjars ...	415	5,141	12.4	7	38	105	5.4	2 12 2	401	2,535	9,296	6.3	3 10 8	442	3,316	8,542	7.5	2 9 2
Other castes ...	74	414	5.6	1	2	11	2.0	5 8 0	389	1,528	4,234	3.9	2 12 6	406	1,790	5,041	4.4	2 13 1
Total ...	5,643	46,096	8.2	71	389	858	4.1	2 15 7	6,555	34,845	1,07,082	5.3	3 1 2	5,681	33,783	91,981	5.9	2 11 7

#### Tenures.

- |                  |                  |
|------------------|------------------|
| 1. Banera.       | 8. Jaoli.        |
| 2. Ajhai Buzurg. | 9. Gangrolli.    |
| 3. Hathiya.      | 10. Basai khurd. |
| 4. Rupnagar.     | 11. Khor.        |
| 5. Amra.         | 12. Ubha.        |
| 6. Sihana.       | 13. Chaumohan.   |
| 7. Undi.         | 14. Bilothi.     |

Of the 111 villages which constitute this pargana, 14\* are muâfi and 97 are khâlsa.

In two of the muâfi villages, Hathiya and Rupnagar, which originally formed one estate, the muâfidars are also in possession of the zamindari rights. In the former of these the

subordinate rights have passed to the muâfidars (the heirs of the Lala Babu) during the currency of the settlement; in the latter there is no trace of their ever having been recognized. This latter village is owned by Amar Lal, Jotishi, of Muttra. Of the remaining 12 muâfi villages a sub-settlement exists with the zamîndars of nine, of which eight are held in bhaiâchâra, while one is pure zamîndari. In the other three the zamîndars obtain a malikâna allowance varying from 5 to 7 per cent. on the collections which are made by the muâfidar. The village of Chaumohan was originally granted, with several other villages in the present districts of Aligarh and Agra, free of revenue by Scindhia to Pandit Gangadhar. On his death in 1811 the whole property was taken over by the Government, who pay one-fourth of the proceeds to the heirs of the muâfidar, the balance going to the support of the Agra College.

Of the 97 khálsa villages nine\* are owned by the Lala Babu, who acquired his rights

- \* 1. Dhimri.  
2. Chamargarhi.  
3. Gulalpur  
4. Garhi.  
5. Pirpur.  
6. Karhela.  
7. Sanket.  
8. Barsana.  
9. Nandgaon.

- † 1. Husaini.  
2. Jatwari.  
3. Ujhiani.  
4. Basai Shergarh.  
5. Khurai.  
6. Karahari.

- ‡ 1. Pisoli.  
2. Sehi.  
3. Tarauli.  
4. Pilhora.  
5. Mangrauli.  
6. Bhartiya.

early in the present century; six† were confiscated for the mutiny of the Gújar zamíndars and given to Gobind Singh, the Rája of Háthras, for good services rendered by him in 1857-58. His

widow, the Ráni Sahib Kunwar, is now in possession. In the year 1842-43 six‡ villages were sold for arrears of revenue, and, failing purchasers, were bought in by Government and held under direct management. Of these, two (Pilhora and Pisoli) were given to Chaudhri Daulat Singh of Ral for his services during the mutiny, and the others were sold at various times. Two of them (Tarauli and Mangrauli) are now owned by Dhusars, one (Sehi) by the Rangji temple of Brindaban, and one (Bhartiya) by Kachwaha Thakurs, also of Brindaban.

Of the 76 khálsa villages remaining, 16 are held in zamíndari tenure, 12 are patidari verging on bháiachára, and 48 are bháiachára pure and simple.

Of the 16 zamíndari villages, only nine § were zamíndari at the last settlement.

- § 1. Lohrari.  
2. Ahuri.  
3. Naugaon.  
4. Pingri.  
5. Hazara.  
6. Tatarpur.  
7. Jamalpur.  
8. Bajna.  
9. Shergarh.

- || 1. Nahra.  
2. Hajipur.  
3. Basai Buzurg.  
4. Khandwal.

Of the seven remaining, two (Astoli and Bilaunda), now held by Dhusars, were purchased by them in 1847 in a sale for arrears of revenue; one (Bahta) was sold by order of the civil court; and in four || the transfer from the village community has been effected by private

purchase. Of the zamíndari villages at the last settlement, six were hereditary and three were acquired by the then owners from the village communities after the commencement of our rule.

#### Transfers.

The area permanently transferred from the persons whom we found in possession at the conquest is 37 per cent. of the whole, and the alienations were caused as follows:—

Private sale.	Civil court sale.	Sale for arrears of revenue.	Confiscation.	Mortgage.	Gift.
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
20,975	4,823	18,997	6,848	6,342	241

The alienations during the period of the settlement have been—

Private sale.	Civil court sale.	Sale for arrears of revenue.	Confiscation.	Mortgage.
5,147	4,693	14,610	6,848	284

Apart from the sales to the Lala Babu, the sales for arrears of revenue after the great famine of 1837-38, and the confiscation of the Gújar villages for mutiny in 1857-58, the transfers have been very few. The case of the village of Palkhera is curious as being the only case with which I am acquainted of a village community recovering their rights by purchase. The village was revenue-free, and on resumption was settled with the ex-muáfidar, as it was considered that all trace of zamíndari rights had disappeared. During the period of last settlement, however, the resident community of Jádons subscribed together and purchased the village, half before the revision and half since.



Proprietary statistics. The area is owned by the different castes in the following proportion :—

Caste.	Resident.			Non-resident.			Total.		
	Number of own-ers.	Area owned in acres.	Average hold-ing.	Number of own-ers.	Area owned in acres.	Average hold-ing.	Number of own-ers.	Area owned in acres.	Average hold-ing.
Brahmans ...	2,683	24,978	9.3	147	2,019	13.7	2,830	26,997	9.8
Thākurs ...	2,528	35,304	13.6	102	5,200	51.9	2,780	40,508	15.0
Jāts ...	781	6,212	7.9	140	8,138	58.1	921	14,350	15.6
Baniyas ...	96	523	5.4	61	8,383	137.4	157	8,906	56.7
Muhammadans ...	151	2,131	14.1	76	1,061	14.0	227	3,192	14.1
Kayaths ...	10	30	3.0	24	15,533	166.3	104	15,663	150.6
Gújars ...	509	11,541	22.7	37	322	8.7	546	11,863	21.7
Dhusars ...	35	1,796	51.3	107	10,419	97.4	142	12,215	86.0
Ahirs ...	13	327	25.1	...	...	...	13	327	25.1
Dedicated to temples ...	...	...	...	2	4,078	2,039.0	2	4,078	2,039.0
Other castes ...	70	525	7.5	13	727	61.4	83	1,252	15.4
Total ...	6,946	83,267	11.9	778	56,069	72.1	7,724	* 1,39,336	18.0

	Acres.
* Proprietors' area	139,356
Owned by Government	617
Muáfi	21,638
	<u>161,611</u>

Castes.

The chief agricultural castes are in order of importance :—

- (1) Gorwas of the Bachhal clan, calling themselves Sisodiyas.
- (2) Jádons, (3) Gújars, (4) Ahiwasis, (5) Jāts.

Besides these there is a sprinkling of other castes ; but with the exception of the Malkanas of Undi, Naugaon, and Bhadawali, the Brahmans of Sahar, Rithaura, Shenwa, Adampur, and a few other villages, the Kachwahs of Mánpur and the two Ajhais, all others are of very minor importance.

The Gorwa colony, including the Malkanas, who were formerly of this clan, is very compact, and occupies about one-third of the pargana. The whole of the country between the Muttra pargana on the south, the Jumna on the east, and a line drawn from Bahta on the river and passing through Ranhera on the Chhátá and Shergarh road, and thence to Sihana on the south near the Dehli road, is almost exclusively occupied by this clan. The Jádons occupy an uninterrupted but irregular-shaped tract of country lying between Chhátá and Kamai, from which latter village one branch shoots off to Sanket, and another to Palikhera, on the Chhátá and Gobardhan road. The Gújars are more scattered, but the great bulk of them are found in the villages to the north-east bordering on pargana Kosi and the Jumna. They occupy a few villages along the Bhartpur border lying under the hills. They are also met with in the three conterminous villages of Bajhera, Sawal, and Pilkhu, and in the outlying village of Parkham. The Jāts occupy the four villages of Nandgaon, Mahrana, Badhokar, and Badhangarh in the extreme north-west, and are, besides, an important element in the population of the town of Chhátá itself. A few of them are found elsewhere. The Ahiwasis are found in the four villages of the two Bharnas, Dahrauli, and Tatarpur on the Muttra border, and in the villages of Khaira, Bhadawal, Khanpur, and Bijwari on the Kosi border. Of the non-agricultural element the most important, considered numerically, are Brahmans, Chamárs, Garariyas, and Baniyas. The Muhammadans are between one-tenth and one-eleventh of the population, but it is only in the large villages of Chhátá, Hathiya, Sahar, Shergarh, Naugaon, and Undi that any large body of them is found. The small village of Bilaunda is inhabited almost exclusively by Malkhanas of the same family as those of Naugaon.

Of the 111 villages constituting the pargana, 106 are inhabited, five—Kamálpur, Jamálpur, Hajipur, Khor, and Labrari—being uninhabited. In only 14 is there more than one inhabited site:—

Hathiya	...	...	...	3	Sehi	...	...	...	5
Sehar	...	...	...	2	Jatwari	...	...	...	2
Semri	...	...	...	4	Ujhiani	...	...	...	2
Biloti	...	...	...	2	Astoli	...	...	...	2
Shergarh	...	...	...	2	Garhi	...	...	...	2
Bahta	...	...	...	2	Gulálpur	...	...	...	2
Syara	...	...	...	3	Dhabala	...	...	...	2

The abadi of Shergarh and Adampur is the same; there are therefore 128 inhabited sites as against 120 at the revision. The average per inhabited site is large, reaching 853. The following villages have a population over 2,000:—

1. Chhata	...	...	7,096	7. Chaumohan	...	...	3,011
2. Shergarh	...	...	5,129	8. Kamai	...	...	2,772
3. Nandgaon	...	...	4,738	9. Mahrana	...	...	2,579
4. Schar	...	...	4,321	10. Bharna (little)	...	...	2,383
5. Khaira	...	...	3,311	11. Sehi	...	...	2,167
6. Barsana	...	...	3,068	12. Hathiya	...	...	2,135

The following have been the returns at the various enumerations of the people:—

					Total population.	Per square mile.
Revision of records	...	...	...	...	87,575	347
1853 census	...	...	...	...	91,404	362
1865 do.	...	...	...	...	97,380	388
1872 do.	...	...	...	...	101,590	409
1876 (preparation of rough records)	...	...	...	...	109,264	433

The population has therefore increased 24 per cent. in 26 years. The returns of houses are useless for comparison, as the term 'house' has borne very different meanings at the various censuses.

The present return of ploughs, &c., is as follows:—

Ploughs and plough cattle, &c.						
Ploughs	...	...	...	...	...	8,503
Plough cattle	...	...	...	...	...	16,936
Sugarcane presses	...	...	...	...	...	46
Sheep and goats	...	...	...	...	...	10,639
Horses and ponies	...	...	...	...	...	1,553
Other cattle	...	...	...	...	...	45,352

The average area per plough, 16 acres, is very large.

The following is the detail of castes by the 1872 census:—

Brahmans	...	...	...	...	...	23,152
Chamars	...	...	...	...	...	15,654
Jadons	...	...	...	...	...	10,679
Rajputs	...	...	...	...	...	10,401
Jats	...	...	...	...	...	5,370
Gujars	...	...	...	...	...	4,921
Baniyas	...	...	...	...	...	4,784
Garariyas	...	...	...	...	...	2,307
Barhais	...	...	...	...	...	1,926
Kurmis	...	...	...	...	...	1,915
Khatiks	...	...	...	...	...	1,762
Kumhars	...	...	...	...	...	1,609
Bangis	...	...	...	...	...	1,383
Bairagis	...	...	...	...	...	1,368
Lohars	...	...	...	...	...	890
Mallahs	...	...	...	...	...	890
Malis	...	...	...	...	...	784
Kahars	...	...	...	...	...	593
Dhobis	...	...	...	...	...	572
Other castes of Hindus	...	...	...	...	...	4,509
Total Hindus	...	...	...	...	...	92,539
Musalmanas	...	...	...	...	...	9,051
Total	...	...	...	...	...	101,590

This return is in some respects incomplete. Ahwasis are not given as a separate class, but apparently mixed with the Brahmans, from whom they are entirely distinct, and for this reason head the list, while there is not a barber shown in the pargana.

#### Fiscal history.

The revenues of the first settlements have been already given.

The assessments of 14\* villages of pargana Sahar were during the currency of the quinquennial settlement revised by Mr. Boddam under Regulation VII. of 1822, and the new revenues were collected from 1236 fasli. The increase from this revision was Rs. 12,905 yearly, which added to the old revenue raised the demand to Rs. 1,36,750.

* 1. Bharna kalan.	8. Sahar.
2. Bharna khurd.	9. Tatarpur.
3. Bajhera.	10. Rahera.
4. Barhokar.	11. Khaira.
5. Jamalpur.	12. Dahrault.
6. Kamai.	13. Deopura.
7. Nazul Sahar.	14. Daraoli.

Mr. Tyler's settlement came into force in 1244 fasli, and resulted in raising the assessment to Rs. 1,75,652—an increase of Rs. 38,902. Of this increase Rs. 4,103 was due to the resumption and assessment of the three villages of Ajhai buzurg, Bhadawal, and Palikhara, the real increase in revenue being only Rs. 34,799. On the 14 villages of which the assessment was revised by Mr. Boddam, a slight decrease of Rs. 862 was granted. In seven† other villages a decrease of Rs. 1,699 was allowed, while in five‡ the old jamas remained unchanged; the increase on the remaining 71 villages was therefore Rs. 37,360.

The expiring demand is Rs. 1,77,308, showing an increase of Rs. 1,656 on the settlement jama. The changes have been as follows:—

#### Increase—

	Rs.
On account of alluvion	1,474
On account of resumption of Siyara in 1841	1,474
On resumption of scattered muafi plots	1,032
	<u>3,980</u>

#### Decrease—

	Rs.
On account of diluvion	1,253
Land taken up for public purposes	771
Revenue on Ajhai buzurg remitted on release of village	300
	<u>2,324</u>

Mr. Tyler assumed the same rent-rates in both pargana Sahar and pargana Shergarh.

#### They were—

	Rs.	a.	p.
1st and 2nd class irrigated bāngar	1	12	0 per bigha.
1st class unirrigated bāngar	1	6	0 "
2nd ditto ditto	1	3	0 "
Irrigated khādar	3	0	0 "
Dry ditto	1	14	0 "

#### His details of area were—

	Cultivated khalsa.	Irrigated.	Dry.
	Acres.	Acres.	Acres.
Shergarh	21,805	3,788	18,037
Sahar	73,406	8,655	64,751

In this are included Ajhai buzurg, now revenue-free, but not Siyara, which is now khalsa. His total estimated rental for these villages was Rs. 2,55,875. The only thing worthy of note in these rates is the great difference between the wet and dry rates in the bāngar—a difference which has most markedly checked the extension of irrigation in those villages where they were in force to the settlement.

The natural soil divisions of the pargana have already been described. It now remains to enumerate and distinguish the classes adopted for assessment. In the bángar, as distinguished from the khádar, two cardinal artificial groups—that is, bára or home lands and barha or outlying lands—have been recognized. The retention of the intermediate group or manjha has here been considered unnecessary, first, because in most villages the whole of the home lands are of one quality, and in villages where, from superior cultivation or any other cause, there is a distinction, the outer circle or manjha fields are of the same character as the home lands in ordinary villages. Four classes of these home lands cover every instance. The first class is only found in a very few villages where vegetable cultivation and superior double-cropping prevail, whilst the fourth class is confined to a few villages, either under the hills or in the ravines, where the soil is light, poor, and sandy. The two intermediate classes contain the bulk of the home lands, and are distinguished from each other according to variations in the character of the soil, irrigation, or cultivation. Two classes of dry home lands have been recognized, but for assessment purposes they were treated with the second ordinary and the worst irrigated home lands, because all fields of an inferior quality were rigorously excluded and thrown into the dry barhas to which they assimilated. Home taráis have been included in the subdivisions within which they fell. A similar examination of the outlying lands showed that they naturally fell into three irrigated and six dry classes. Considering the generally level character of the pargana, this classification seems detailed; but, owing to the presence of the ravines, hills, and sand ranges, and their accompanying light soils, all these divisions were found necessary to do justice to them and to make their rates representative ones, covering all differences.

On account of their greater importance the dry subdivisions will be first noticed. They are:—

- |  |  |
|--|--|
| I.—Best loam.                              | IV.—Worst loam and ordinary bhúr.              |
| II.—Ordinary loam.                         | V.—Inferior bhúr and fair púth.                |
| III.—Loam below the average and best bhúr. | VI.—Inferior púth with some of the worst bhúr. |

For each class a standard was taken, and then around it the soils which approached this standard the most nearly were grouped. The standard for the first class was the western hár of Tarauli, a first class loam similar to the dúmat of the Duáb, and, with good cultivation and water, capable of any degree of excellence. The second division is the ordinary hár of the pargana, and contains a larger area than all the other soils put together. To it the general description applies. The third class includes the best hárs of the villages bordering on the ravines and hills, of which the extensive hár of Sehi, covering about six square miles, was the standard example. In the fourth class were included the ordinary level bhúrs and the bad patches of loam. The sixth class comprises the bulk of the dry cultivation on the sand ranges and among the ravines, which is uneven in surface and devoted mostly to inferior kharif crops; whilst the fifth class includes somewhat better soils of the same description and the sloping bhúr hars which adjoin. The areas of the taráis or lowlying patches are abstracted separately, although they are to a very small extent recognized as a distinct class by the people themselves. During the rains they become receptacles for the surface water, and hence the soil is harder and firmer than that of the surrounding fields, and they can only be sown with rabi crops. This, however, does not decrease their value much, first, because double-cropping is both rare and—from the bad system of cultivation here prevalent—decidedly injurious to the soil; and second, because rabi is produced in them year after year without deteriorating the land, and the crops are generally superior to those in the ordinary hár. In the best taráis in the pargana cane is sometimes grown. Two subdivisions were found sufficient to cover their diversity.

Of the three classes of irrigated hár, the best includes all the soils which, were they unirrigated, would be included in the best dry loam, and also some of the lighter soils which the superior character of the water or greater facility for irrigation, com-

bined with good cultivation, raises to the same level. In the third class fall the ordinary irrigated bhárs and púths only. All the remaining irrigated hárs were grouped in the second class. The two classes of irrigated taráís correspond with the dry taráís.

In the classification of the Jumna khádar the distinction of home and outlying land was preserved. The home lands were grouped in two classes only. Of the first there are but two examples—Hazara and Shergarh. The vegetables of Hazara, especially, find a ready market in the distant towns of Brindaban and Chhátá. The second class corresponds to the ordinary bāngar home lands, and is sufficiently raised above the flood level of the river to ensure double crops.

Of the outlying khádar there are four subdivisions, varying from pure sand to rich loam unaccompanied by reh. Of the first class the Pírpur and Big Basai khádars are the best examples, and of the second class the Bahta and Oba khádars. In the third class was generally comprised all the light fields of Jumna sand recently acquired from the river; while the fourth class is confined to the high-lying bhúr soil covered with sarpat grass, of which the Dhimri khádar is the best representative. Melon cultivation is altogether limited to the third class or Jumna sand.

The peculiarity of this pargana, and one which materially narrowed the field of Rates. investigation, was the prevalence of revenue-rates, as distinguished from rent-rates, in all the bhaiyáohára and most of the pattidari villages, while in some of the zamindari villages also the old proprietary communities had been allowed to hold on at rates which are practically revenue-rates, and which had not been disturbed since the revision. Naturally these revenue-rates had a great effect in keeping down rent-rates over the remainder of the pargana, and as a consequence in villages such as those owned by the Ráni of Háthras, where rents which would be considered moderate in the Duáb parganas had been lately imposed, the villagers considered that they have been most hardly dealt with. Most of these villages, such as Sehi, which were sold for arrears of revenue, and then for many years held under direct management, in which the assumed rates of the last settlement still prevail, had to be excluded. The custom of all-round rates in many of the remaining villages tended in the same direction, for in excluding competition amongst the tenants, and in binding them together, it materially weakened the power of the zamindars to enhance up to the full value of the land; besides, all other circumstances remaining the same, the zamindar is by this system precluded from taking advantage of any natural or artificial differences in his village, as even the worst holdings must be able, after paying the rent, to afford a subsistence to the tenants. The notorious lightness of the current assessment and the comparative scantiness of the population, as compared with other parganas, are other causes of the low prevailing rates.

The first rate to determine on was that on the ordinary dry loam, which is by far the most important of all the soils, and the one on which all the others hinged. The best and fairest example to be found in the pargana was the uninhabited and un-irrigated village of Jamálpur, cultivated by páhis from the four adjoining villages of Sahár, Sankhi, Bajhera, and Nari, the perfectly uniform soil of which is a typical example of the class under discussion. In this village over 1,500 bighas in cultivated area an all-round uniform rate of Rs. 2 per bigha was paid, and the facts that no complaints were made, and that all the cultivators are páhis, show that the rates must be light rather than excessive. Going to a totally different part of the pargana, it was found that a precisely similar rate was collected over a large area in the dry hárs of the two conterminous villages of Shergarh and Astoli, the former of which borders on the ravines. Here also this rate was accepted without cavil. Again in Bilaunda this land paid Re. 1-14-0 per bigha, whilst in the neighbouring village of Nangaon Rs. 2-2-0 was paid for kharíf crops. In the very large muáfi village of Hathiya, which had been always to a great extent cultivated by the old zamindars at notoriously easy rates, the dry hár, including several patches of inferior land, paid Re. 1-11-0 a bigha;

whilst in Nandgaon the shikmi rate was, as far as can be ascertained, seldom less than Rs. 3, although the zamíndar only collected Re. 1-9-0. Again in Bilothi the rate paid for juár, gram, bájra, and bejhar was Re. 1-15-3. In the part of the inferior village of Ajnokh, owned by Kunwar Lachman Singh, Deputy Collector, the lowest rate collected was Rs. 2 per bígha. Although excluded from my inductions, may be cited the villages of the Ráni of Háthras as examples of what can be paid by this land. Thus in Ujhiani páhis from pargana Kosi paid Rs. 2-12-0 to Rs. 2-14-0 per bígha ; whilst in Karahari, where the home lands are small and poor, and irrigation exceedingly limited, and there is a large area of inferior hár, the all-round rate varied from Rs. 2-5-6 to Rs. 2-8-0.

Re. 1-14-0 per bígha, or Rs. 3-4-0 per acre, is the rate finally decided on.

Next to this in importance is the third dry class, that of "loam below the average and best bhúr." Of this class the most characteristic examples were—Prípur, Re. 1-13-0 per bígha ; Garhi, Re. 1-13-0 ; Dhimri, Re. 1-12-0 ; Basai (big), Re. 1-11-9 ; Gulálpur, Re. 1-12-0. These are soil rates over large areas, and unmistakeably pointed to a rate of Re. 1-12-0 per bígha.

The only villages where soil rates for the fourth class existed were—Pírpur, Re. 1-2-6 ; Garhi, Re. 1-2-6, Re. 1-11-0, and Re. 1-13-0 ; Shergarh, Re. 1-8-0 ; Hajipur, Re. 1-8-0 (including púth). Although these point to a higher rate, Re. 1-4-0 was, considering the class of soil, considered sufficient.

For best púth the rates varied from Re. 1-8-0 to 12 annas, and for the worst the lowest rate was 10 annas. On account of the precarious character of the soil, Re. 1 per bígha for the best púth and 10 annas for the worst was assessed.

Of the best day hár there were no examples found, but, considering its quality, Rs. 2-2-0 per bígha was fixed on.

No examples of rates for the home lands and irrigated hárs were found, and the estimate of the value of these lands has been based on the rates assumed for the dry soils as above given. It is true that there are in some villages rates current for irrigated and dry soils, but they are for the most part all-round rates ; and the former is always a rate on actual, and not on potential, irrigation. These therefore bear a higher proportion to the dry rates than I should be assumed for the area entered as irrigated ; and to assess on actual irrigation would be, as is well known, altogether unscientific and misleading.

The rates fixed on were—

*Home lands—*

						<i>Per acre.</i>
						<i>Rs. a. p.</i>
1. Best	...	...	...	...	...	8 0 0
2. Ordinary good	...	...	...	...	...	6 0 0
3. Ordinary average subdivided into irrigated and dry	...	...	...	...	...	5 4 0
4. Bhúr and púth subdivided into irrigated and dry	...	...	...	...	...	4 8 0

*Irrigated outlying lands—*

1. Best	...	...	...	...	...	5 0 0
2. Ordinary	...	...	...	...	...	4 8 0
3. Bhúr and púth	...	...	...	...	...	3 8 0

The slight difference in the rates on the home lands over those on the hárs, as compared with the parganas in the Duáb, is very noticeable ; but it must be remembered for the first time in this pargana this classification was introduced, which, except in a few isolated instances, had never before influenced the determination of rents. The highest rent discovered as paid for any bángar land in the pargana is Rs. 4-10-0 per bígha for a few fields close to the town of Chháta held by Kunjaras. The home

taráís go with their respective uplands, whilst the outlying taráís may also be assessed with the first and second class irrigated and dry hárs, to which they approximate very closely in value.

Of the best home khádar only two examples exist—in one, Hazara, all-round rates obtained; in the other, Shergarh, the rates were Rs. 5 and Rs. 4 per bigha. The tenants who paid Rs. 5 cultivated in land commanded by wells belonging to a muáfídar, and had to pay a water-rate in addition to their rent; Rs. 4-8-0 per bigha was fixed on. In none of the villages possessing the second class of khádar home lands were any special rates in force; but, judging from the rates which hold for the best hár, Rs. 3-8-0 the bigha was taken.

The rates in force for the best outlying khádar hár in representative villages were :—

			Rs.	a.	p.	
Ujháñi	...	...	4	5	0	(belonging to the Ráni of Háthras).
Shergarh	...	...	2	12	0	
Pirpur	...	...	2	5	0	
			2	7	0	
Basai (big)	...	...	2	11	0	
Sehi	...	...	2	12	0	

In the Oba khádar, which adjoins Pirpur, and which was put into the next class as slightly inferior, Rs. 3 was the current rate. Mr. Tyler, who only drew the distinction of dry and irrigated khádar, assumed a rent of Rs. 3 per bigha all round for the latter. Considering the comparatively permanent character of the bulk of this land, and the absence of any general necessity for irrigation, Rs. 3 per bigha was assessed as the rent-rate.

In the second class of the outlying khádar the current rates were—

			Rs.	a.	p.
Oba	...	...	3	0	0
Sehi	...	...	2	0	0
Dhimri	...	...	2	2	0
Gulálpur	...	...	1	11	0
			0	2	0
Chamargarhi	...	...	1	11	0
Bahta	...	...	2	0	0

Mr. Tyler's rate for dry khádar was Re. 1-14-0. Comparing the quality of this class with that of the best hár, Rs. 2-2-0 was assumed. This was much below the rate in Oba, where there is no complaint of rack-renting, but it gives a considerable increase on the rates holding in the remaining villages. The third class comprises lands along the Jumna, the area of which varies much from year to year, owing to alluvion and diluvion. When sown with rabi crops, the general rate was Re. 1-8-0 per bigha; when sown with melons, as high a rate as Rs. 4-8-0 per bigha was obtained, but in this case the zamíndar was bound to provide the manure. The area of this crop is comparatively insignificant. The bulk of the area in the last class is confined to the village of Dhimri, where Re. 1-3-6 is the current rate. Re. 1-4-0 is the rate assumed.

Estimated rentals at assumed rates.

Applying these rates to the soil areas, we have the following results :—

*Bángar khálsa.*

			Acres.	Rs.	Rs.	a.	p.
Bara I.	...	...	251 × 8 =	2,008	0	0	
Do. II.	...	...	1,417 × 6 =	8,502	0	0	
Do. III.	...	...	5,021 × 5½ =	26,860	4	0	
Do. IV.	...	...	147 × 4½ =	661	8	0	
Do. IIID.	...	...	637 × 5½ =	3,344	4	0	
Tarái bara II.	...	...	23 × 6 =	138	0	0	
Ditto III.	...	...	109 × 5½ =	585	8	0	
Ditto IIID.	...	...	17 × 5½ =	89	4	0	
Irrigated barha A.	...	...	9,018 × 5 =	45,090	0	0	
Ditto B.	...	...	9,534 × 4½ =	42,903	0	0	
Ditto C.	...	...	1,162 × 3½ =	4,067	0	0	

			Acres. Rs.	Rs.	a.	p.
Tarai irrigated barha A.	...	...	373 x 5 =	1,865	0	0
Ditto ditto B.	...	...	360 x 4½ =	1,620	0	0
Dry barha 1	...	...	7,883 x 3½ =	29,561	4	0
Ditto 2	...	...	47,541 x 3½ =	1,54,508	4	0
Ditto 3	...	...	15,823 x 2½ =	43,513	0	0
Ditto 4	...	...	3,515 x 2 =	7,030	0	0
Ditto 5	...	...	2,959 x 1½ =	4,438	8	0
Ditto 6	...	...	2,651 x 1 =	2,651	0	0
Tarai dry barha 1	...	...	874 x 3½ =	3,277	8	0
Ditto 2	...	...	2,133 x 3½ =	6,932	4	0
			1,11,441	3,89,095	8	0

*Pucka—**Khadar khalsa.*

Bara II.	...	...	6 x 6 =	36	0	0
Do. III.	...	...	35 x 5½ =	181	4	0
Do. IV.	...	...	25 x 4½ =	112	8	0
Irrigated bara A.	...	...	58 x 5 =	290	0	0
Ditto B.	...	...	297 x 4½ =	1,336	8	0
Ditto C.	...	...	62 x 3½ =	217	0	0
Dry bara 1	...	...	91 x 3½ =	295	12	0
Ditto 2	...	...	150 x 2½ =	412	8	0
Ditto 4	...	...	35 x 2 =	70	0	0
Ditto 5	...	...	76 x 1½ =	114	0	0
Ditto 6	...	...	153 x 1 =	153	0	0

*Kucha—*

Bara I.	...	...	64 x 8 =	512	0	0
Do. II.	...	...	293 x 5½ =	1,538	4	0
Barha III.	...	...	1,833 x 4½ =	8,348	8	0
Do. IV.	...	...	1,541 x 3½ =	5,393	8	0
Do. V.	...	...	190 x 2½ =	427	8	0
Do. VI.	...	...	316 x 2 =	632	0	0
Total	...	...	5,215	19,920	4	0

*Bangar mudfi.*

Bara I.	...	...	74 x 8 =	592	0	0
Do. II.	...	...	813 x 6 =	1,678	0	0
Do. III.	...	...	749 x 5½ =	3,932	4	0
Do. IV.	...	...	17 x 4½ =	76	8	0
Do. IIII.	...	...	76 x 5½ =	399	0	0
Tarai bara I.	...	...	8 x 8 =	64	0	0
Ditto II.	...	...	11 x 6 =	66	0	0
Ditto III.	...	...	66 x 5½ =	346	8	0
Ditto IIII.	...	...	7 x 5½ =	36	12	0
Irrigated barha A.	...	...	1,836 x 5 =	9,180	0	0
Ditto B.	...	...	1,268 x 4½ =	5,706	0	0
Ditto C.	...	...	167 x 3½ =	584	8	0
Tarai irrigated barha A.	...	...	140 x 5 =	700	0	0
Ditto ditto B.	...	...	15 x 4½ =	67	8	0
Dry barha 1	...	...	758 x 3½ =	2,642	8	0
Ditto 2	...	...	8,660 x 3½ =	28,145	0	0
Ditto 3	...	...	1,178 x 2½ =	3,229	8	0
Ditto 4	...	...	786 x 2 =	1,572	0	0
Ditto 5	...	...	212 x 1½ =	318	0	0
Ditto 6	...	...	269 x 1 =	269	0	0
Tarai dry barha 1	...	...	475 x 3½ =	1,781	4	0
Ditto 2	...	...	885 x 3½ =	926	4	0
Total	...	...	17,370	62,792	8	0

*Khadar mudfi.*

			Acres. Rs.	Rs.	a.	p.
Irrigated barha B.	...	...	70 x 4½ =	315	0	0
Dry barha 3	...	...	39 x 2½ =	107	4	0
Ditto 4	...	...	3 x 2 =	6	0	0
Total	...	...	112	428	4	0



An assessment at half assets would therefore give—

				Revenue.	Cesses.
				Rs.	Rs.
Bángar khálsa	...	...	...	1,94,640	19,454
Khádar do.	...	...	...	9,960	996
Bángar muáfi	...	...	...	...	3,136
Khádar do.	...	...	...	...	210

The expired demand was—

				Rs.	a.	p.
Revenue	...	...	...	1,77,308	0	0
Cesses, khálsa	...	...	...	17,730	0	0
Do., muáfi	...	...	...	2,833	9	6

Financial results.

The final assessment was Rs. 2,02,933, a rise of Rs. 25,625, or 14 per cent. on the old demand.

A statement of the rental of the pargana after the conclusion of enhancement is added, though in villages of the character of the ones in this pargana such a statement is not of much value;—

Description.						After completion of enhancement.		
						Area.	Rent.	Rate.
						Rs.	Rs.	Rs. a. p.
Sir	...	...	...	...	...	46,842	1,00,208	...
Ex-proprietary tenants	...	...	...	...	...	509	1,422	2 12 8
Land held by resident tenants with occupancy rights	...	...	...	...	...	32,262	98,203	3 0 8
Ditto by non-resident tenants with occupancy rights	...	...	...	...	...	4,786	14,241	2 15 7
Ditto by resident tenants-at-will	...	...	...	...	...	22,290	74,261	3 5 4
Ditto by non-resident tenants-at-will	...	...	...	...	...	5,621	18,824	3 5 7
Rent-free land granted by zamindars	...	...	...	...	...	1,393	127	...
Cultivated gardens, &c.	...	...	...	...	...	2,263	133	...
Total						1,15,868	3,07,419	...

The decrease in the cultivated area is due to the scarcity of 1877-78, to which years these figures refer, and during which several tenants emigrated.

M. A. McCONAGHEY.



20	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	300	607	3	2	3	139	136	8	152	1	39	296	335	471	0	7	10	0	10	2	0	14	3
21	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	300	158	...	...	...	...	...	1	2	...	51	108	154	157	1	14	4	1	14	6	1	15	1
22	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	300	400	...	...	...	...	...	...	...	...	21	215	256	350	0	8	0	0	9	1	0	13	6
23	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	240	140	...	...	...	...	...	...	...	...	44	88	127	139	1	11	5	1	11	7	1	14	2
24	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	3,300	2,157	3	40	11	133	187	10	196	...	521	1,243	1,764	1,971	1	8	6	1	10	9	1	13	11
25	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	300	397	...	...	...	...	...	...	...	...	6	228	239	389	0	12	1	0	12	6	1	4	11
26	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	750	316	...	...	...	...	...	...	...	...	258	42	297	312	2	5	10	2	6	6	2	8	4
27	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	229	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
39	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
41	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
44	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
45	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
46	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
47	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
49	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
50	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
51	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
52	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
53	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
54	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
55	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
56	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
57	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
58	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
59	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
60	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
62	Barbers	Mahal	Gorwa	525	525	750	850	568-14-9	1,100	1,021	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...





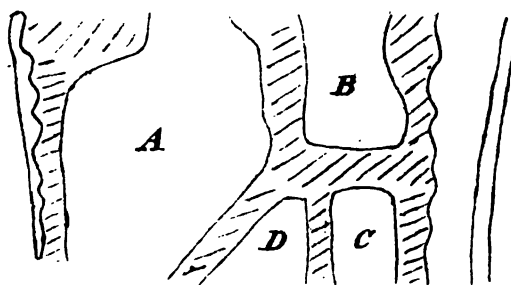
## General statement of tahsil Chhatis—(concluded).

STATISTICS OF AREA.																							
Number.	Village.	NOT ASSESSABLE.										ASSESSABLE.											
		Total area in acres.	Revenue free.	Site.	Occupied by water.		Barren waste.	Total.	Groves.	Culturable land un-cultivated.				Cultivated.				Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and cultivable) per acre.	Incidence of present revenue on total cultivated area per acre.			
					Old waste.	Lately thrown out of cultivation.				Irrigated.	Not irrigated.	Total cultivated.	Total assessable.										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.
127	Gangrauli Khadar	...	...	...	...	...	Ra.	110	...	...	...	1	1	...	47	1	36	25	61	109	...	...	...
128	Hathiya	...	...	...	...	...	...	4,565	...	...	...	96	129	13	587	5	551	3,150	3,831	4,486	...	...	...
129	Jaoli	...	...	...	...	...	...	778	...	6	2	7	15	1	134	...	340	288	628	763	...	...	...
130	Khor	...	...	...	...	...	...	293	...	...	3	3	6	...	12	...	55	218	273	287	...	...	...
131	Oba, Bangar Musfi	...	...	...	...	...	...	584	...	...	5	13	20	13	5	48	197	251	448	614	...	...	...
132	Ranera	...	...	...	...	...	...	2,640	...	12	13	43	68	4	202	...	1,022	1,344	2,366	2,572	...	...	...
133	Rup Nagar	...	...	...	...	...	...	279	...	2	2	5	9	3	34	...	60	173	233	370	...	...	...
134	Sihana	...	...	...	...	...	...	1,612	...	12	16	33	61	4	32	...	679	836	1,515	1,551	...	...	...
135	Undi	...	...	...	...	...	...	918	...	6	15	26	47	...	155	1	275	440	715	871	...	...	...
	Total, Musfi	...	...	...	...	...	...	20,298	...	104	149	444	697	81	1,941	92	4,731	12,751	17,482	...	...	...	...
	GRAND TOTAL	1,02,906	1,00,328	1,18,575	1,75,552	1,76,872	2,02,963	161,611	21,538	1,039	1,225	6,312	30,114	347	13,732	762	29,960	86,666	116,656	131,497	...	...	...

## KOSI.

General description and physical features—Details of area—Communications—Sources of irrigation—Increase in irrigation since last settlement—Constitution of the pargana—Character of the cultivation—Crop statistics—Comparison of cultivating statistics at revision with those at the preparation of rough records—Cultivating statistics by caste—Proprietary bodies and tenures—Proprietary statistics by caste—Transfers—Population statistics—Plough and cattle statistics—Fiscal history—Comparison of areas—Soils—Rates—Application of soil rates to soil areas—Financial results—Rentals after enhancement—General statement.

THIS is the most northerly of the three Cis-Jumna parganas of the district, and like the other two, extends from the river on the east to the Bhartpur border on the west. It is bounded on the north by the Gurgaon district, and on the south by pargana Chhāta. It is rectangular in shape, and its breadth from east to west averages seventeen miles, whilst its average length from north to south is only nine miles. The local capital is at Kosi on the Muttra and Delhi road, and is very conveniently situated, being almost in the very centre of the pargana. The Agra canal divides the pargana into two equal portions and crosses the Delhi road about a mile south of the town of Kosi. As in Chhāta there are no streams, except the Jumna, of the slightest importance, and no natural hills of any magnitude. The upland or bāngar portion very much resembles that of Chhāta. There are no hills however except the isolated one of Charan Pahar in Bathen khurd, which rises only a few feet above the level of the country, and is not more than 400 yards in length. On the west the Bhartpur hills are seen in the distance, whilst to the north-west the rocks of Bichor are only half a mile or so beyond the Gurgaon border. As in Chhāta, the surface of the country is diversified by low sand ranges. One range or chain runs parallel to the hills and forms the boundary of the pargana on the west and north-west, whilst on the east the ravines and sandy downs of the Jumna present themselves as usual. Besides these two ranges, there is a third system of sand which can easily be traced, and which in an assessment point of view is of much more importance than the other two. It is star-shaped, with its centre at Gobeta, from which four arms branch out: one runs to the north-west through the villages of Phalen, Kharaut, and Hatāna, where it enters the Gurgaon district; the second stretches in a north-easterly direction towards the Jumna and joins the raving downs of that river near Barha; the third branches off to the south-west, passing through Azizpur, Tumaūra, and Jalālpur, where it is continued on in Chhāta in the Khaira and Dahrauli range described under that pargana; the fourth and smallest arm follows a southerly direction, leaving the pargana at the Chhāta khās border, from whence it runs along the Delhi road until the Jumna ravines near the Muttra city are reached.



The upland portion of the pargana is thus naturally broken up by these sand ranges into four distinct plains. The largest of these plains is that to the west (A) with the Charan Pahar in its centre. It is almost circular in shape with a diameter of eight miles, and is the most uniform tract of country I have ever seen. The surface is perfectly level, broken only by the Charan Pahar, the large village sites, and the extensive rakhiyas which are dotted over it. The soil also, a rich friable loam, is just

as uniform as the surface; and, strangely enough, Jâts form the most important agricultural element of the population in every village within the tract. There is one great drawback, however; the almost universal brackishness of well water. This, added to the depth from the surface at which water is found, prevents the construction of many kucha wells; and in good seasons like the year of inspection, a number of the most brackish pukka wells even are not irrigated from: nevertheless, I have seldom seen more uniform and better crops than those grown in this tract during the spring of 1876, when I inspected the pargana. The gram and bejhar (all unirrigated) were splendid, and the average produce must have been twelve maunds per acre at the lowest estimate. In years of drought the change is complete and the whole tract is transformed into a hard-baked plain, with here and there some rabi cultivation round the wells. The second and next largest plain B. lies between the north-west and north-east branches of the star, the Jumna ravines and the Gurgaon border. It is about half the size of that already described, and resembles it in many features. The soil is the same, but a trifle lighter, except in the centre, down which runs a slight depression, where it is exceptionally hard and firm. The water in this plain is also for the most part brackish, becoming "kharí jarel" in the central village Sujaoli. The third plain C. is that on the Chhâta border to the south-east, containing the large village of Paigaon and parts of Phalen, Chandaury, Marhauli, Bishambara, Badhar, and Rámpur. This is a continuation of the great eastern loam plain of Chhâta, and to it the description there given applies. The fourth and smallest plain D. is traversed by the Dehli road at Dotána. It is the top end of the central loam tract of Chhâta, and lies between the two southern arms of the star. The surface is not so perfectly uniform as in the other three plains: but slopes gradually from the edge of the sandhills towards the centre, where there is a marked although slight depression. In this depression the soil is particularly hard and cloddy, whilst nearer the sand ranges it becomes almost bhúr. The Jumna khâdar of this pargana strongly resembles that of Chhâta, but it is more uniform, and there is a larger area in comparison of the better classes of soil. In proportion to its length, it is also more extensive. Its boundary is distinctly marked by a line of cliff which rises abruptly out of it to the height of about 25 feet. Behind this cliff there is a belt of ravines or sandy downs, which, as usual, separates the bângar from the khâdar portion of the pargana. All the sites of the villages bordering on the Jumna are built on the cliff, so that every cultivator is brought within easy distance of his whole holding, which is generally composed of both high lands and lowlands. Of the 12 villages which abut on the Jumna, 11, in addition to their bângar lands, have large khâdar areas, whilst the 12th, Chaundras, notwithstanding that the river runs close to the high bank, has also a small khâdar mahál on the opposite or Aligarh side, the solitary exception in this pargana to the general rule of the deep stream being the boundary.

The total area of the pargana is 97,945 acres, or 153 square miles; of which 83,117 acres, or 130 square miles, are actually cultivated, and 9,424 acres, or 14½ square miles, culturable. The revenue-free area, including 315 acres of groves, is only 411 acres, or two-thirds of a square mile.

The Delhi road is the only metalled road in the pargana. It passes through the town of Kosi, and divides the pargana into two almost equal portions. There is one first class kucha road from Kosi to Shergarh, and scores of good country roads, which intersect the pargana in every direction, and bring all the villages within easy reach of the great artery, the Delhi road. These country roads are broader and better than usual, and, owing to irrigation being so little practised, are not crossed every hundred yards or so by water-channels, the curse of village roads elsewhere. The soil being for the most part firm and good, these roads are exceptionally free from both sand and mud, and during the greater part of the year a dog-cart can be driven almost everywhere with comfort.



The average depth of water throughout the bāngar or upland portion taken from hundreds of measurements is 35·22 feet. In the village Sources of irrigation. bordering on the Bhartpur hills to the south-west, water is closer to the surface, and is sometimes found at 25 or 26 feet: whilst in the uplands along the Jumna it is even now and then reached at 20 feet. Elsewhere the depth to water seldom exceeds 50 or falls lower than 30 feet. In the sand ranges as a rule it is nearer the surface than in the level plains on each side. The total number of masonry wells habitually used for irrigation is 767, and of kucha wells 606. Of the latter 233 are supported by wooded cylinders and 360 by cylinders formed of branches and twigs, whilst 13 only are altogether unprotected. Of the 1,373 wells in use, 570 are returned as absolutely sweet and 98 as "banga," *vis.*, containing ammonia in solution. The remainder are more or less brackish or oily, and are subdivided as follows:—

Khari (salt)	...	...	...	...	347
Khari teliya (oily salt)	...	...	...	...	40
Khari jarel (salt and burning)	...	...	...	...	14
Mitha teliya (oily sweet)	...	...	...	...	103
Marmara (brackish)	...	...	...	...	169
Marmara teliya (oily brackish)	...	...	...	...	32
					<hr/>
					705
					<hr/>

The irrigation returns for this pargana were more carefully prepared at last settle- Increase in irrigation ment by Mr. Tyler than those for pargana Chhāta, and only since last settlement. the khādar fields, which were at the time habitually irrigated, were so recorded. Mr. Tyler's general statement exhibits an irrigated area of 13,983 acres out of a total cultivated area of 77,282 acres, or 18 per cent. The present statistics are 21,471 irrigated acres out of a total cultivation of 83,117 acres, or 26 per cent. Irrigation has therefore increased absolutely from 13,983 to 21,471 acres, and relatively from 18 to 26 per cent. of the total cultivation.

At last settlement the pargana consisted of 60 khālsa villages and one muāfi village, Pilauli. Shortly after the settlement was concluded, Constitution of the par- Pilauli was resumed and the village of Biruki transferred to gana. Gurgaon, Kharaut being received from that district in its stead. In 1841, when Mr. Tyler reported on the pargana, there were 61 villages, all khālsa. No changes have taken place since then, except the splitting up of Chaundras into two separate estates, with distinct boundaries, thereby raising the number of independent villages to 62.

Owing to the prevalence of Jāts, the cultivation is superior to that of Chhāta, but Character of the culti- not equal to that of the Duāb parganas, where high rates and vation. dense populations necessitate hard and sustained labour. As a rule, the soil is fairly ploughed and worked, and the crops are not left to take care of themselves after the seed is sown, as often happens in the more backward villages of Chhāta.

The following crop statistics for the pargana exhibit a decided improvement on Crop statistics. Chhāta, both in the areas under wheat and cotton, and in the nearer approach of the rabi to the kharif percentage. This is owing to better cultivation: otherwise there is the same evidence of scanty irrigation, but real natural goodness of soil.

\*Crop statistics.

Bánger.

KHARIF.					RABI.					GARDEN CROPS OR KACHHIYANA.				
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.	
Sugarcane ...	4	...	4	...	Wheat ...	4,287	315	4,552	5.45	Tobacco ..	12	68	75	.09
Cotton ...	13,683	350	14,033	16.80	Barley ...	1,733	404	2,137	2.56	Other crops,	123	18	141	.17
Indian-corn,	3	195	198	.24	Bejhar ...	18,041	144	18,185	21.79	Total ...	135	81	216	.26
Juár ...	22,476	1,598	24,076	28.83	Gram ...	6,942	3,913	9,955	11.99	Area under arhar, 4,555 acres.				
Bájra ...	2,884	1,573	4,457	5.34	Gojai ...	403	54	457	.54					
Rice ...	1	6	7	.01	Other crops,	154	191	275	.33					
Hemp ...	28	9	47	.06										
Khurti ...	975	186	1,161	1.39										
Other crops,	3,520	215	3,735	4.48										
Total ...	43,586	4,132	47,718	57.15	Total ...	31,510	4,051	35,561	42.59					

Khádar.

KHARIF.					RABI.					GARDEN CROPS OR KACHHIYANA.				
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.	
Sugarcane ...	...	...	...	...	Wheat ...	1,397	21	1,418	40.46	Tobacco ...	10	5	15	.43
Cotton ...	169	11	180	5.14	Barley ...	318	22	340	9.70	Melons ...	27	...	27	.77
Indian-corn,	2	31	33	.94	Bejhar ...	676	16	692	19.74	Other crops.	10	1	11	.31
Juár ...	134	11	145	4.14	Gram ...	39	15	54	1.54	Total ...	47	6	53	1.51
Bájra ...	61	27	88	2.51	Gojai ...	391	4	395	11.27					
Khurti ...	32	8	40	1.14	Other crops,	41	6	47	1.24					
Other crops,	18	2	20	.57						Area under arhar, 13 acres.				
Total ...	416	90	506	14.44	Total ..	2,862	84	2,946	84.05					

Total crop area, bánger and khádar	...	...	...	87,000
Fallow	...	...	...	421
				87,421
Dofaali	...	...	...	4,222
				83,199
Muáfi	...	...	...	82
				83,117

\* The returns of the last settlement give 66 per cent. kharif and 34 per cent. rabi. Cotton covered 35 per cent., wheat 4 per cent., and barley 5 per cent. of the area.

Comparison of cultivating statistics at revision with those at the preparation of rough records.

The following statement shows the details of holdings for the khālsa area :—

Description.	At revision.			At preparation of records.		
	Number of holders.	Area.	Average.	Number of holders.	Area.	Average.
		Acres.			Acres.	
Sir ... ..	5,378	44,427	8.3	5,861	49,751	8.3
Ex-proprietary tenants ... ..	...	...	...	79	450	5.7
Resident tenants with occupancy rights ...	418	4,367	10.4	2,053	9,368	4.5
Non-resident tenants with occupancy rights ...	2	23	11.5	691	2,479	3.6
Resident tenants-at-will ... ..	2,344	21,747	6.5	2,888	14,772	5.1
Non-resident tenants-at-will ... ..	1,799	8,123	4.5	1,028	4,438	4.3
Rent-free land granted by samindars ...	343	1,377	4.0	539	1,530	2.9
Cultivated gardens, &c. ... ..	...	...	...	...	329	...
Total ... ..	11,264	80,064	7.1	12,359	63,117	6.3

In this return the rentals have not been given, as most of them are at revenue-rates and not rent-rates. More than 62 per cent. of the whole cultivated area is held by the proprietors themselves as sir, a sure sign of the prevalence of bhaiāchāra tenure. Occupancy tenants are to tenants-at-will in the proportion of two to three. The average cultivation of each proprietor is about 8 acres, and of each tenant 5 acres.

Cultivating statistics by caste.

Caste.	Str.			Ex-proprietary tenants.					Tenants with occupancy rights.					Tenants-at-will.				
	Number.	Area.	Average holding.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.
		Acres.		Num.	Acres.	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.
Jāt ...	3,742	34,591	9.2	50	319	529	6.4	1 10 6	939	4,096	14,408	4.4	2 8 3	1,167	8,190	15,243	7.0	1 13 9
Brahman,	991	6,178	6.2	17	53	28	3.0	0 7 10	401	1,670	4,508	4.1	2 11 2	697	2,942	4,776	4.2	1 9 11
Thākūr ...	637	4,513	7.1	4	30	50	7.5	1 10 8	475	2,612	5,967	5.5	2 4 7	267	1,354	2,639	5.1	1 15 2
Musalmán,	279	2,575	9.3	5	31	93	6.2	3 0 0	200	788	2,436	3.9	3 1 5	315	1,305	3,895	4.1	2 15 8
Chamár ...	47	335	7.1	...	...	...	...	...	235	882	2,822	3.8	3 4 5	590	2,538	6,578	4.3	2 9 6
Baniya ...	97	416	4.3	...	...	...	...	...	56	230	405	4.1	1 12 2	61	171	427	2.8	2 7 11
Garariya ...	8	16	2.5	...	...	...	...	...	37	150	394	4.0	2 10 0	51	202	567	4.0	2 12 11
Kachli ...	10	13	1.3	...	...	...	...	...	27	154	896	5.7	5 13 1	103	506	2,274	4.9	4 7 11
Barhai ...	34	176	5.2	...	...	...	...	...	39	130	262	3.3	2 0 3	63	165	421	2.6	2 8 10
Gūjar ...	1	11	11.0	...	...	...	...	...	158	573	1,958	3.6	3 6 8	171	754	2,433	4.4	3 3 8
Other castes,	134	927	6.9	3	18	98	6.0	5 7 1	177	562	1,188	3.2	2 1 10	432	1,083	2,575	2.5	2 6 0
Total ...	5,981	49,751	8.4	79	450	798	5.7	1 12 4	2,744	11,847	25,314	4.3	2 15 8	3,916	19,210	41,828	9.4	2 2 10

On the occupation of the country 34\* of the 62 villages now constituting this Proprietary bodies and tenures.

(1) Kanmar. (2) Mandaura. (3) Garbi Barwari. (4) Lalpur. (5) Sirthala. (6) Halwana. (7) Khathauta. (8) Pakharpur. (9) Ruthri. (10) Puthri. (11) Mahanki. (12) Kodona. (13) Bathen khurd. (14) Ledri.	} Jāts of the Bahinwar Pāl.	(19) Bathen kalan. (20) Gonhari. (21) Jav. (22) Surwari. (23) Tunaara. (24) Chandaori. (25) Azizpur.	} Jāts of the Chhatona Pāl.	pargana belonged entirely to resident Jāt communities, whilst in six others Jāts possessed larger or smaller shares. Amongst the villages held by them were some of the very largest, such as Phalen, Bathen kalan, and Paigaon, so that in reality this caste or tribe owned about three-fourths of the pargana
		(26) Dahgaon. (27) Amrals. (28) Kotban. (29) Nabipur. (30) Hasanpur Nagla.		
		(31) Gindoe—Lokana Jāts. (32) Batana—Sorot " (33) Barhana—Tumar " (34) Phalen { Thok Ramdhan—Tumar Jāts. " Bisu—Rawat Jāts.		
(15) Goheta, 10 biswas. (16) Do., 7 " (17) Do., 3 " (18) Paigaon.	} Rawat Jāts.			

- † 1. Kosi  
 2. Sanchauli.  
 3. Bishambara.  
 4. Ainch.  
 5. Barha.  
 6. Kharaut

towards the commencement of the present century.

Since then they have lost only four entire villages. Of these one, Jav, was purchased by the Lala Babu early in the century; two, Pakharpur and Ruthri, by Khushali Ram and others, Marwaris of Kosi, some 32 years ago; and the fourth, Garbi Barwari, passed for good into the hands of the Lucknow Seths (Phundan Lal and Kundan Lal) after revision. In most of the Jāt villages Brahmans have from time immemorial been proprietors of small portions ranging from one-tenth downwards. These Brahmans are invariably the descendants of the original family priests of the brotherhood who accompanied the Jāt immigrants in their first occupation of the country, and to whom were allotted certain portions of the newly acquired land for their support and in lieu of their spiritual services. It will be observed that the Jāt colonization is almost altogether confined to the western and central portion of the pargana. In only three villages on the east, and in them but partially, do members of this caste own land. In the Jāt villages the tenure is almost exclusively pure bhaiāchara.

Next to the Jāts in importance come the Jádons. They are hereditary zamindars of the seven entire villages of Shernagar, Rupnagar, Khairai 7½ biswas, Khairai 3½ biswas, Barka, Bhukrari and Sujauli; they own half of Dhanauta and Shahzadpur and one-fourth of Bishambara. These villages form a compact cluster in the eastern portion of the pargana, and six of them border on the river Jumna. The Jádons have held their own better here than in other parganas of the district, and although not so tenacious as the Jāts, are still in possession of the greater part of their ancestral property. In the remaining village, Shahzadpur, owned by Jádons and Brahmans, the constitution is so peculiar and abnormal that I do not think it out of place to quote from my notes on the administration clauses of the wajib-ul-arz to illustrate it:—

" This village belongs to Jádons Thákurs and Brahmans. The tenure is a most exceptional one. Ancestral shares have never been recorded, nor is it known how much belongs to the Jádons and how much to the Brahmans. In the khewat names alone are entered. Separate possession is not recognised, nor do the sharers even hold the same area of khudkasht or sár from year to year. Their cultivation is always changing. The Government jama, local cesses, and village expenses are paid by a bachh on the land cultivated during the year; and tenants also pay the bachh. The zamindars themselves cannot tell their shares, nor do they wish any enquiry to be made on the subject. At the revision their wish was respected, and the khewat was then a mere record of names. On the decease of a sharer his heirs' names have been entered, nothing more. All disputes are settled by the proprietary community in

open council. There are four lambardars, three Jádons and one Brahman. The total area is 1,880 bighas, 4 biswas, and the Government jama was Rs. 1,407. The village is partly bángar and partly khálar. The lambardars receive no allowance, and the bachh is made in open council, which is attended by all the sharers. The lambardars cannot even pass any village expenses without the consent of all. All fines on the general body are paid by a special bachh on cultivation. The bulk of the area is cultivated by the proprietary body. Whoever plants a bág is its owner, but he must pay dhar-bachh on the area. Trees planted by a sharer belong to him, although his cultivation may change. Trees in the waste belong to all. A sharer cannot sell or mortgage any specified share in biswas or biswansis, nor can he alienate any given area. He can only alienate his rights and interests, and any or all his co-sharers can claim pre-emption. When a lambardar dies, he is succeeded by his son, if fit. Otherwise the members of the "kunba" elect a successor. Partition is not to be allowed. Partition was never made, and the immemorial custom on this point is to remain unaltered."

Brahmans, as amongst the Játs, hold small hereditary shares in most of the Jádón villages. Gújars formerly owned Majhoi, Rámpur, and one-half of Dhanauta. In Majhoi and Rámpur their zamindari rights were confiscated for rebellion in 1857-58 and conferred on Rája Govind Singh of Háthras, whose widow, the Ráni Sahib Kunwar, is now in possession. In Dhanauta they have also sold their shares to Chaubes from Muttra and Athwariyas of the village.

Gorwa Thákurs were the original proprietors of Chauki and three-fourths of Ainch, but they fell into arrears of revenue and were sold up. Government became the purchaser, and subsequently farmed the villages to Hidayat Ali Khan, who in the mutiny took part with the rebels and was dispossessed. In 1861 the property was granted in full zamindari to Jairam Dás for good services rendered by him in 1857-58 at Agra. He was Lala Joti Parshad's gumashta, and helped much in conveying supplies into the fort whilst the European residents of Agra and the neighbouring districts were shut up there. His sons, Sheo Sahai Mal and Ram Sahai Mal, Khatris of Dehli, are now in possession.

To Brahmans, in addition to the endowment originally granted to them by the Játs and Jádons, belonged the villages of Dhamsingha, Barchauli, and Chaundras. They have sold  $6\frac{1}{2}$  biswas of Chaundras to Shaikhs of Hasanpur, pargana Palwal, who have lately formed their purchase into a separate estate with distinct boundaries under the name of Shakúrganj. In Dhamsingha and Barchauli Brahmans are still in possession, although about one-eighth of the former and two-sevenths of the latter have been alienated to strangers. The tenure of these two villages is bhaiáchára. Ahiwasis hold the small village of Nagariya, which tradition says was formed out of 2 biswas from Khaira and  $2\frac{1}{2}$  biswas from Dhamsingha by Thákur Badan Singh, father of Suraj Mal, the first Rája of Bhartpur.

Muhammadans owned originally five\* entire villages and parts of five† others. These villages are scattered over the pargana and have no connection with each other. The most important is Shahpur, situated on the banks of the Jumna. It contains a large Muhammadan population and was founded towards the middle of the sixteenth century by an officer of Sher Shah's Court called Mir Ji of Biluch extraction, whose descendants are still in possession. There are now five separate maháls, in two of which, maháls Ala Din Khan and Indarwala, outsiders have acquired a very strong footing: seven-eighths of Barha, on the Jumna also, was owned originally by Biluchis, most probably connected with those of Shahpur; but they have given way for the most part to Dhusars, Baniyas, and Játs. Dotána is a large village on the Dehli road, half way between Kosi and Chhátá. It is a place of great antiquity, and must have been at one time a town of considerable importance. According to Mr. Growse, "there are seven large tombs dating from the time of Sháhjahán and Aurangzeb, if

\* Shahpur.  
Dotána.  
Mahrauli.  
Jalálpur.  
Pitauli.

† Barha.  
Bishambar.  
Kosi.  
Khairaut  
Sanchauli

not earlier (there are no inscriptions), and three mosques of the same period, erected respectively by Inayat Ulla Khan, Kázi Haidar Khan, and Ruh Ulla Khan. There is also a large masonry tank constructed by Shaikhs Hudhan and Jaman, a modern mosque founded by Abdul Barkat, and four small gardens. Many of the large brick houses in the village are in a most ruinous condition, and the zamíndars are now in poor circumstances." The hereditary zamíndars are Shaikhs and claim descent from Kabir-ud-din, a Shaikh Tirmiz who accompanied Timur Shah to Hindustan. They say that Nawáb Sadullah Khan, Vazir of Sháhljáhán, was a resident of this village. In the mutiny these Shaikhs joined the rebels in plundering the Kosi tahsil, and a portion of the estate called Tafrik Sad-ud-din was confiscated and bestowed on Durga Parshad, Deputy Collector, a Kashmiri Pandit, whose daughter, Musammat Maharani, is at present in possession. The small villages of Jalálpur and Pilauli belonged originally to the Shaikhs of Jalálpur, but they have alienated half their property. Similarly in Mahrauli the Pathán zamíndars, a poor and turbulent set, have sold or mortgaged the larger portion of their village. Mewatis have all along owned half of Bishambara and part of Sanchauli; whilst Shaikhs are the hereditary zamíndars of one of the three thoks in Kosi itself. The only other village in which Muhammadans originally held property is Kharaut, of which a four-biswa share belonged to them: one-fourth of this, or one biswa, has been wrested from them by Játa.

Proprietary statistics by caste.

Caste.	RESIDENT.			NON-RESIDENT.			TOTAL.		
	Number of owners.	Area owned in acres.	Average holding.	Number of owners.	Area owned in acres.	Average holding.	Number of owners.	Area owned in acres.	Average holding.
Brahman ...	1,446	9,827	6.8	492	3,453	7.0	1,938	13,280	6.8
Thákur ...	906	9,820	10.8	124	816	6.6	1,030	10,136	9.8
Ját ...	4,417	47,632	10.8	1,448	7,819	5.4	5,865	51,451	9.4
Baniya ...	163	790	4.8	80	3,797	3.6	243	5,517	14.8
Musalman ...	433	7,986	18.4	81	806	9.9	514	8,792	17.1
Kayath ...	...	...	...	5	2,330	466.0	5	2,330	466.0
Other castes ...	364	2,095	5.8	43	1,826	42.5	407	3,921	9.6
Total ...	7,729	77,650	10.0	2,273	19,847	8.7	10,002	97,497	9.7

Area owned by proprietors				...	...	...	Acres.
Muáfi	...	...	...	...	...	...	97,497
				...	...	...	97,591
Land appropriated by Government				...	...	...	352
				...	...	...	97,943

The following statement gives the area transferred to strangers since we conquered the country, arranged under the head of the transfer to which it was last subject.

Total area.	Transferred to strangers.					Transferred amongst the sharers themselves.				Area remaining untouched in the hands of the original proprietors.
	Private sale.	Auction in execution of decree.	Confiscation.	Mortgage.	Gift.	Private sale.	Auction in execution of decree.	Mortgage.	Gift.	
Acres. 98,572	5,723	2,769	5,457	8,189	220	1,699	586	13,452	23	60,214

Of this area there have been transferred to strangers from the hands of the persons with whom the last settlement was made the following areas :—

Private sale.	Civil court sale.	Confiscation.	Mortgage.	Gift.
Acres.	Acres.	Acres.	Acres.	Acres.
2,171	1,529	5,445	7,372	200

Putting aside the 5,457 acres confiscated for rebellion in the mutiny, I find that somewhat less than one-eleventh of the total area has been transferred permanently to outsiders by sale, and only an equal proportion temporarily alienated to strangers by mortgage. These figures embrace all transactions not annulled which have taken place since the commencement of our rule. Compared with similar statistics for the Duáb parganas, where nearly the whole area has changed hands often over and over again, the paucity of alienations here becomes even more striking. Light assessments and a generous administration, combined with the conservative character of the village communities, are the principal causes.

Of the 62 villages constituting the pargana, 56 are inhabited, and six—Ledri, Mahanki, Mandaura, Pilauli, Ruthri, and Khairai, 3½ biswas—uninhabited. In only eight is there more than one inhabited site :—

Hatána ... ..	3	Phalen ... ..	5
Rupnagar ... ..	2	Bathen kalan ... ..	2
Dahgaon ... ..	2	Barhāna ... ..	2
Dotána ... ..	2	Goheta, 3 biswas ... ..	2

There are thus 68 inhabited sites in all, with an average population per site of 1,148, and an average area attached of 1,440 acres. These averages are exceptionally high.

The following villages have populations of over 2,000 souls :—

Kosi ... ..	12,862	Paigaon ... ..	2,687
Kanmar ... ..	4,362	Gindo ... ..	2,548
Phalen (including its four naglas) ...	4,212	Hatána (including its two naglas) ...	2,510
Bathen kalan (including its nagla) ...	3,06½	Jav ... ..	2,057
Dahgaon (including its nagla) ...	2,883	Kotban ... ..	2,013
Shahpur ... ..	2,820		

The returns at the various enumerations of the people have been :—

						Total population.	Per square mile.
1848 census	...	...	...	...	...	55,999	366
1853 „	...	...	...	...	...	68,467	450
1865 „	...	...	...	...	...	68,356	448
1872 „	...	...	...	...	...	73,808	482
1876 „	...	...	...	...	...	78,073	510

The population has therefore increased by 14 per cent. since 1853, when the first trustworthy census was taken.

The caste details according to the last census are as follows :—

						Agriculturists.	Non-agriculturists.	Total.
Ját ... ..	...	...	...	...	...	20,491	746	21,237
Chamát ... ..	...	...	...	...	...	14,043	6,531	10,574
Brahman ... ..	...	...	...	...	...	7,987	1,790	9,777
Baniya ... ..	...	...	...	...	...	426	4,542	4,968
Thákur ... ..	...	...	...	...	...	3,699	217	3,916
Koli ... ..	...	...	...	...	...	13	3,086	3,099
Bhangi ... ..	...	...	...	...	...	...	1,286	1,286
Kumhar ... ..	...	...	...	...	...	181	1,098	1,279
Nai ... ..	...	...	...	...	...	165	1,063	1,228
Garariya ... ..	...	...	...	...	...	460	637	1,097
Barhai ... ..	...	...	...	...	...	354	732	1,086
Bairági ... ..	...	...	...	...	...	450	489	939
Máli ... ..	...	...	...	...	...	715	201	916
Gujar ... ..	...	...	...	...	...	831	49	880
Jogi ... ..	...	...	...	...	...	318	341	659
Lohar ... ..	...	...	...	...	...	210	369	579
Mallah ... ..	...	...	...	...	...	312	242	554
Other castes ... ..	...	...	...	...	...	1,140	4,007	5,147
Muhammadan ... ..	...	...	...	...	...	3,189	5,713	8,902
Total ... ..	...	...	...	...	...	44,934	33,139	78,073

The total number of ploughs is 4,945, and of plough cattle 11,547 ; the average area cultivated per plough being 17 acres. The returns give 6,726 sheep and goats, 938 horses and ponies, and

23,181 head of other cattle, excluding those used for cultivation. This pargana is justly celebrated for its fine breed of cattle, and Kosi cows are much sought after all over the North-Western Provinces.

During the first three settlements the revenue was collected with ease and punctuality, and no balances were allowed to accrue. The settlement under Regulation VII. of 1822 was undertaken by Mr. Boddam, who was Collector in 1236 fasli. He completed the assessment of 28 villages, of which he raised the Government demand from Rs. 88,096 to Rs. 97,071, an increase of Rs. 8,975. His settlement turned out to be a failure, and in 1240 fasli the high jamas imposed by him began to be felt. This led to a balance of Rs. 7,869 during the years 1240 and 1241 fasli, in consequence of which a reduction of Rs. 1,730 was granted by Government in the jamas of five villages which had suffered most. This relief enabled the zamindars to pay up in full the revenue for 1242 and 1243 fasli. In 1244 fasli (1835-36 A.D.) a general revision under Regulation IX. of 1833 was conducted by his successor, Mr. Tyler, who found the pargana (as now constituted) paying a demand of Rs. 1,56,007, or Rs. 2 on each acre of cultivation. The villages were then very unevenly assessed; those settled by Mr. Boddam laboured under high jamas, whilst those which had not been touched since 1223 fasli were, on the other hand, equally under-assessed.

The net result of Mr. Tyler's revision was a revenue of Rs. 1,63,303, an increase of Rs. 7,296 on the jama of 1243 fasli. Of this increase he attributes Rs. 6,350 to the resumption and assessment of muafi grants, including the village of Pilauli, which was then for the first time brought on the revenue-roll of the pargana and assessed to a jama of Rs. 300. On the 28 villages settled by Mr. Boddam, he granted a decrease of Rs. 4,395; and allowing for the sum of Rs. 6,350 assessed on land which had hitherto been exempted from the payment of revenue, he must have raised the demand on the remaining 32 villages by Rs. 5,341. The subsequent history of this pargana has already been traced in the general report.

It seems inconsistent that villages such as Gindo, Kadona, and Sujauli should be amongst those that collapsed most signally after the settlement. Their soil consists of one sheet of splendid loam, producing in good seasons the most luxuriant crops; in fact, judging from their appearance at inspection, one might say that they were almost unequalled in the district for productiveness. But they are cursed with strongly brackish well water, mixed with reh. This water is perfectly useless for "pareh," and the seed will not germinate under its application; hence these villages in a year of drought become hard and arid plains without a blade of vegetation. The introduction of the canal is a matter therefore of great moment to this pargana.

The expiring demand is Rs. 1,51,181; the changes since settlement in 1850 are :—

	Rs.
<i>Increase—</i> (a) For alluvion ... ..	1,081
(b) For resumption of muafi plots ... ..	80
<b>Total</b> ...	<b>1,161</b>
<i>Decrease—</i> (a) For diluvion ... ..	418
(b) Reduction granted for good services rendered during the mutiny ...	428
(c) For land taken up for public purposes ... ..	1,166
<b>Total</b> ...	<b>2,004</b>
<b>Net decrease</b> ...	<b>843</b>



## Comparison of areas.

Period.	Total area.	NOT ASSESSABLE.					ASSESSABLE.						
		Muṣḍ.	Site.	Occupied by water	Barren waste.	Total.	Groves.	Out of cultivation.		Cultivated.			Total assessable.
								Culturable waste.	Fallow.	Irrigated.	Dry.	Total cultivated.	
Last settlement,	Acres. 95,776	712	Not ascertainable.		11,025	11,737	Not ascertainable.	4,894	1,863	13,983	63,299	77,282	84,039
Present	... 97,945	96	785	1,566	2,642	5,089	315	8,556	868	21,471	61,646	83,117	93,856

The increase in cultivation has been 5,835 acres, or 7·55 per cent., and in irrigation 7,488 acres, or 53·55 per cent. Irrigation relative to cultivation has likewise risen from 18 to 26 per cent. The great increase shown under "culturable waste" is due to the rakkhiyas or preserved woodlands, so common in this pargana, being returned under this head. These rakkhiyas, although generally of the best soil and close to the village sites, will never be encroached on as long as Hindús remain superstitious: nor is it at all advisable that they should be encroached on, as they afford grazing ground for the village cattle, and an outlet for the inhabitants, so much to be desired. Some of these rakkhiyas are of great extent, that of Kanmar for instance, covering 513 acres.

From the description of the physical features of the pargana given at the commencement of this report, the soil classes, for assessment purposes, can be easily elicited. In the level plains of the bángar portion the prevailing natural soil is a good loam, varying from firm dúmat locally known as "kári," to a lightish but still consistent piliya called by the people "masita." Real kari soil can be at once distinguished from real masita, but it is their various modifications which are so perplexing, and which render a hard-and-fast demarcation in most instances impossible. Besides, practically they are so indetical in value that it would only lead to useless complications to distinguish between them in an assessment point of view. The soil of the plains I have therefore treated as loam, whether it be kári or masita, or an admixture of both, as long as it is otherwise good and productive. In the sand ranges and their slopes the loam of the plains gives way to bhúr or sandy soil; whilst in the depressions or hollows it is on the other hand replaced by chiknot or kalar. Chiknot is a plastic soil with a larger percentage of alumina than either dúmat or piliya; whilst kalar is hard and unproductive, and contains a considerable admixture of úsar and reh. The natural soils are therefore:—

- (1). Loam.
- (2). Bhúr or sand.
- (3). Chiknot or taráí.
- (4). Kalar.

Only two cardinal artificial groups, bára or home lands, and barha or outlying lands, have been recognized. Of the home lands, irrespective of purely natural soil distinctions, which owing to manure and high cultivation, have there less effect, four classes or subdivisions, three of which are irrigated and one unirrigated, have been retained. They are—

Irrigated home lands, superior	...	...	...	...	(1)
Ditto ditto ordinary good	...	...	...	...	(2)
Ditto ditto ordinary fair	...	...	...	...	(3)
Unirrigated home lands	...	...	...	...	(4)

The barha or outlying lands, according to their natural soils, their productiveness or unproductiveness, and their capabilities or non-capabilities for irrigation, have been subdivided as follows:—

Outlying loam	...	...	{ Irrigated	...	...	...	(5)
			{ Unirrigated	...	...	...	(6)

Outlying bhúr, including bad loam and ravy soil	Irrigated	Ordinary	...	...	(7)
		Below average	...	...	(8)
	Unirrigated	Fair	...	...	(9)
		Indifferent	...	...	(10)
		Bad	...	...	(11)
Outlying chiknot or tarái	Irrigated	...	...	...	(12)
	Unirrigated	...	...	...	(13)
Outlying kalar	Irrigated	...	...	...	(14)
	Unirrigated	...	...	...	(15)

For the khádar the Chhátá classification has in its entirety been adhered to. The soils therefore are—

Bára or home lands	Best	...	...	...	(1)
	Ordinary	...	...	...	(2)
Barha or outlying lands	Best	...	...	...	(3)
	Ordinary	...	...	...	(4)
	Jumna sand	...	...	...	(5)
	Bhúr	...	...	...	(6)

In the Chhátá report has been explained at considerable length the great difficulties encountered in ascertaining suitable soil rates, as well as the means employed to overcome those difficulties. Here, owing to the greater prevalence of bhaiáchára tenure, revenue-rates as opposed to rent rates, are even more common; nevertheless, by studying carefully the comparatively few instances where real rent-rates are actually paid, and by making use of the experience previously gained in Chhátá and Muttra, the following were fixed on:—

						Rs. a p.
Bára or home lands	Irrigated	superior	...	...	...	9 0 0
		Ditto ordinary good	...	...	...	7 0 0
		Ditto ditto fair	...	...	...	6 0 0
	Unirrigated	...	...	...	...	5 0 0
Barha or outlying lands	Loam	Irrigated	...	...	...	5 0 0
		Unirrigated	...	...	...	4 0 0
	Bhúr, including bad loam and ravy soil	Irrigated	...	...	...	4 8 0
			...	...	...	3 8 0
		Unirrigated	...	...	...	3 4 0
			...	...	...	2 8 0
	Chiknot or tarái	Irrigated	...	...	...	1 4 0
		Unirrigated	...	...	...	5 0 0
	Kalar	Irrigated	...	...	...	3 12 0
		Unirrigated	...	...	...	3 8 0
Bára or home lands	Best	...	...	...	...	2 0 0
	Ordinary	...	...	...	...	9 0 0
Barha or outlying lands	Best	...	...	...	...	6 0 0
	Ordinary	...	...	...	...	5 0 0
	Jumna sand	...	...	...	...	4 0 0
	Bhúr	...	...	...	...	3 8 0

Applying these rates to the soil areas we have the following results:—

				BÁNGAR.	Acres.	Rs.	Rs. a p.
Home lands	Irrigated	...	...	Superior	...	435 × 9 =	3,915 0 0
		...	...	Ordinary good	...	2,315 × 7 =	16,505 0 0
		...	...	Ordinary fair	...	1,269 × 6 =	7,614 0 0
Outlying loam	Dry	...	...	...	...	259 × 5 =	1,295 0 0
		...	...	...	...	12,871 × 5 =	64,355 0 0
Outlying bhúr, including light pillya, and ravy soil	Irrigated	...	...	...	...	42,099 × 4 =	1,68,396 0 0
		...	...	...	...	...	...
	Dry	...	...	Ordinary	...	2,382 × 4½ =	10,269 0 0
		...	...	Below average	...	546 × 3½ =	1,911 0 0
		...	...	Fair	...	8,991 × 3½ =	29,320 12 0
Outlying tarái	Dry	...	...	Indifferent	...	3,032 × 2½ =	7,580 0 0
		...	...	Bad	...	2,065 × 1½ =	2,581 4 0
		...	...	...	...	...	...
Kalar	Irrigated	...	...	...	...	1,006 × 5 =	5,030 0 0
	Dry	...	...	...	...	2,173 × 3½ =	8,148 12 0
Total	Irrigated	...	...	...	...	41 × 3½ =	143 8 0
	Dry	...	...	...	...	418 × 2 =	836 0 0
				Total	...	79,702	3,26,800 4 0
				KHÁDAR.			
Home lands	Best	...	...	...	...	83 × 9 =	747 0 0
	Ordinary	...	...	...	...	81 × 6 =	486 0 0
Outlying lands	Best	...	...	...	...	2,049 × 5 =	10,245 0 0
	Ordinary	...	...	...	...	764 × 4 =	3,056
	Jumna sand	...	...	...	...	23 × 2½ =	57 8 0
	Bhúr	...	...	...	...	371 × 2 =	742 0 0
Hár	Irrigated bhúr, below average	...	...	...	...	25 × 3½ =	87 8 0
	Dry bhúr, indifferent	...	...	...	...	19 × 1½ =	28 12 0
				Total	...	83,115	15,444 12 0
				GRAND TOTAL	...	83,117	3,42,245 0 0

An assessment rigorously made at half assets would therefore give a revenue of close on Rs. 1,71,000, an increase of between Rs. 19,000 and 20,000 on the current demand. The individual revenues assessed on each estate, with reference to its individual capabilities and past history, amount in all to Rs. 1,67,040. I might without much hardship have raised the demand to Rs. 1,70,000, or even Rs. 1,71,000, by adhering more rigidly to the rule of half assets; but in a pargana like the present one, owned almost exclusively by large bhaiáchára communities, it is in my opinion always the best policy to err on the side of leniency if there is a reasonable doubt. The increase is thus Rs. 15,859, or 10·5 per cent. on the expiring revenue, Rs. 1,51,181.

Owing to the great prevalence of dhar-bachh, or revenue-rates, throughout the pargana, the recorded rentals are no measure whatsoever of the real value of estates in which such customs exist. The jamabandi simply becomes a detailed record of liabilities to the common fund, and ceases entirely to deal with rents; in fact, in many of the purest bhaiáchára villages rents are absolutely unknown. It therefore serves no useful purpose to give a statement of past recorded rentals; I however add the details, showing the rentals after the completion of the enhancements :—

Description.	Area.	Rent.	Rate.
	Acres.	Rs.	Rs. a. p.
Sir ... ..	49,295	1,17,875	2 6 3
Ex-proprietary tenants ... ..	448	1,407	3 2 3
Resident tenants with occupancy rights ... ..	9,782	31,240	3 3 1
Non-resident tenants with occupancy rights ... ..	3,851	7,004	2 7 3
Resident tenants-at-will ... ..	12,957	41,412	3 3 1
Non-resident tenants-at-will ... ..	3,417	11,480	3 5 9
Rent-free land granted by zamindars ... ..	1,218	68	...
Cultivated gardens, &c. ... ..	1,700	11	...
Total ... ..	81,668	2,10,495	...

The decrease in the cultivated area since the preparation of the rough records is due to the scarcity of 1877-78, to which year these figures refer, and during which several tenants emigrated.

M. A. McCONAGHEY.

General Statement of Tahsil Kosi.

Village.		STATISTICS OF AREA.										Incidence of revenue on total area per acre.			Incidence of revenue on malgusari area per acre.			Incidence of revenue on cultivated area per acre.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		NOT ASSESSABLE.																			ASSESSABLE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Average of last five years.	Present revenue.	Total area in acres.	Revenue-free.	Blis.	Occupied by water.	Barren waste.										Total.	Groves.	Old waste.	Lately thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.	Total assessable.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1	Ainch	Ra.	Jagir	Ra.	Ra.	Ra.	Ra.	1,105	...	7	3	14	24	4	171	1	530	375	905	1,081	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	7	2	1	

24	Jalalpur Janubi ...	535	1,000	560	300	3	2	71	13	...	7	...	76	206	281	285	1 13 10	1 16	1 1 15 10
25	Ditto Shimali ...	4,550	4,300	560	304	3	1	3	6	...	8	...	98	367	395	298	1 13 5	1 14 0	1 14 4
26	Jao ...	2,000	1,700	1,700	2,329	24	15	34	73	...	187	...	608	1,457	2,064	2,256	1 14 11	1 15 11	2 2 11
27	Kaduna, 184 biswas	2,000	1,700	1,700	972	4	6	21	43	...	73	...	148	707	855	929	1 11 11	1 13 3	1 15 9
28	Ditto, 14 do.	6,700	5,900	5,900	68	...	...	...	...	...	...	...	24	43	67	68	2 0 11	2 0 11	2 1 5
29	Kamar ...	6,700	5,900	5,900	3,544	3	31	76	174	...	650	...	669	9,059	2,738	3,371	1 9 8	1 11 0	2 1 5
30	Khalai 74 biswas bangar	1,350	1,150	860	646	1	6	31	43	...	114	...	17	472	489	604	1 5 3	1 6 9	1 12 1
31	Ditto 74 do. khadar	Included in mahali	650	480	181	...	...	1	1	...	...	...	76	102	178	180	2 6 0	2 6 3	2 6 7
32	Ditto 84 do. bangar	Jagir	475	480	331	...	1	30	31	...	57	...	12	231	243	300	1 7 2	1 9 7	1 15 7
33	Ditto 34 do khadar	Included in Sirhala	4,159	5,000	80	...	...	...	...	...	...	...	21	58	79	79	2 8 0	2 8 6	2 8 6
34	Kharanth ...	Included in Sirhala	4,159	5,000	3,487	...	69	41	122	9	520	...	755	2,080	2,835	3,365	1 6 1	1 7 9	1 12 2
35	Khatarta ...	Jagir	4,159	5,000	1,320	...	8	15	28	...	148	...	144	999	1,143	1,292	1 8 2	1 8 9	1 11 11
36	Koi ...	Jagir	5,800	5,800	2,188	2	109	29	304	51	45	...	681	1,066	1,47	1,844	2 0 10	2 7 0	2 9 2
37	Koban ...	Jagir	4,394	4,394	2,943	...	14	55	57	7	862	...	636	1,859	2,486	2,556	1 10 7	1 11 5	1 15 6
38	Lalpur ...	Jagir	2,300	2,300	1,911	12	7	26	58	...	240	...	409	1,803	1,612	1,858	1 5 9	1 6 5	1 9 0
39	Ledri ...	With Sanchauli	325	450	317	...	...	...	...	...	7	...	19	284	303	310	1 7 2	1 7 3	1 8 3
40	Mahaki ...	With Sanchauli	275	450	317	...	...	...	...	...	7	...	19	284	303	310	1 7 2	1 7 3	1 8 3
41	Maharauli ...	With Sanchauli	1,400	1,350	882	...	...	...	...	...	7	...	57	215	272	279	1 9 6	1 9 9	1 10 5
42	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
43	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
44	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
45	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
46	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
47	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
48	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
49	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
50	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
51	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
52	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
53	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
54	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
55	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
56	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
57	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
58	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
59	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
60	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
61	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
62	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
63	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
64	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
65	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
66	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
67	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
68	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
69	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
70	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
71	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
72	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
73	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
74	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
75	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
76	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
77	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
78	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
79	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
80	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
81	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
82	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
83	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
84	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
85	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
86	Mandana ...	With Sanchauli	200	1,000	848	...	...	...	...	...	26	...	231	560	781	811	1 9 6	1 10 7	1 11 7
Total		11,1075	1,16,964	1,67,040	97,945	96	755	2,642	5,089	315	9,556	808	21,471	61,446	89,117	92,896	1 11 31	12 9 2	0 0

# MÁT-NOH JHIL.

General description—History—Constitution of the pargana—Boundaries and physical features—Communications, &c.—Markets—Irrigation—Cultivation—Baisuri—Crop statistics—Tenures—Population—Proprietary statistics—Cultivating statistics—Castes—Transfers—Noh Jhil fiscal history—Mát fiscal history—Method of inspection and soils adopted for assessment—Rates—Rental at assumed rates—Assessment—Financial results—Rents before and after enhancement—General statement.

TAHSIL MAT-NOHJHIL consists of the old tahsil of Noh Jhil together with part of the villages originally forming tahsil Mát. Pargana Mát is a long narrow strip running along the left bank of the Jumna, while pargana Noh Jhil is, speaking roughly, a semi-circle curving round the bend of the river, and the depression from which the tract is named. The shape of the tahsil may therefore be compared to a Polynesian battle-axe. Its extreme length from Piprauli on the south to Chaukra on the north is 28 miles; in pargana Mát the average breadth is between six and seven miles, while taking Noh in the centre, the semi-circular sweep of a radius of about eight miles would include nearly all the Noh Jhil villages, except those lying in the triangular tract south of a line drawn from Musmina and prolonged through the centre. The total area is about 222 square miles, of which 178 square miles are actually cultivated and 29 square miles are culturable. The details of the area are :—

Period.	Total area.	NOT ASSESSABLE.					ASSESSABLE.						
		Muss.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Out of cultivation.		Cultivated.			Total assessable.
								Culturable waste.	Fallow.	Irrigated.	Dry.	Total cultivated.	
<b>Pargana Mát.</b>	<b>Acres.</b>												
Last settlement.	64,929	3,189	51	30	4,976	8,246	5	6,505	2,119	23,780	24,274	48,054	56,683
Revision,*	66,912	2,797	814	615	4,578	8,791	164	3,980	1,411	24,775	27,788	52,563	58,118
Present ...	67,783	2,537	606	709	3,928	7,780	286	4,561	1,386	38,795	14,975	53,770	60,003
<b>Pargana Noh Jhil.</b>													
Last settlement.	70,502	1,283	...	...	9,268	10,501	...	7,521	1,840	17,406	33,234	50,640	60,001
Revision *	73,817	554	830	664	5,723	7,171	131	5,277	4,651	22,170	33,917	56,087	68,046
Present ...	74,259	515	536	890	1,939	3,880	235	9,382	2,655	31,763	26,344	58,107	70,379
<b>Total Tahsil.</b>													
Last settlement.	1,35,431	4,422	31	30	14,244	18,747	5	14,026	3,959	41,186	57,508	98,694	1,16,684
Revision,*	1,40,729	3,341	1,644	1,279	10,301	16,565	295	9,257	5,982	46,945	61,705	1,08,650	1,24,164
Present ...	1,42,042	3,052	1,143	1,599	5,867	11,660	521	13,943	4,041	70,558	41,319	1,11,877	1,30,383

Thus in Mát the area is now returned as over four per cent., and in Noh Jhil as nearly five per cent. more than it was at the last settlement. To some extent this change is due to the action of the river, but not entirely; for in his Noh Jhil report Mr. Tyler speaks of having found that the jaribs, with which some of the measurements were made, were several inches too long.

At the time of the compilation of the *Ain-i-Akbari* Noh was a separate pargana and included in the Koil Sirkar of the Agra Suba, while Mát was then part of Mahában, which belonged to the Agra Sirkar of the

\* In this statement the statistics of the revision of records have been given, but I have not been elsewhere able to utilize them for comparison, as in Noh Jhil almost all the papers were destroyed in the mutiny, and the existing records were prepared subsequently at various times.

same Suba. Before the conquest Noh Jhil was included in General Perron's jagir, and Mát in General DeBoigne's. When taken from Scindhia in 1803, they were as a temporary measure attached, Noh to the Fatehgarh, and Mát to the Etáwah division ; but on the constitution of the Aligarh district in the following year they were incorporated in it. For some little time the English supremacy was merely nominal, for it was not until January 1st, 1805, that Mr. Russell, the Collector, could report that he had cleared Noh from an incursion of Mahrattas, and, with the assistance of Thákur Harkishn Singh of Beswan, established his thánas. On the submission of Dundi Khan of Kamona, who had joined the Mahrattas in their raid, Noh was farmed to his son Ranmast Khan. By October, 1807, however, Ranmast Khan had given further proofs of his disaffection, among others, by his attack on the village of Musmina, and he was consequently outlawed and expelled by the troops under General Dickens. On this a zamindari settlement was concluded. Pargana Mát, with the exception of the Dunetiya talúka, of which Bhagwant Singh of Mursan was the overproprietor, was farmed to Thákur Daya Ram of Háthras until 1808 ; when his accounts were in confusion, the pargana was taken from him and a zamindari settlement was made. In 1824 both the parganas were transferred to the Sádabad (now Muttra) district. In 1861 they were amalgamated into one tahsil. Though joined together for administrative purposes, these two parganas are contrasts in many ways. I have therefore kept their statistics apart.

When reported on by Mr. Tyler, Noh Jhil consisted of 95 khalsa villages, and Mát of 44 khalsa and 3 muáfi villages. In 1840 Bhadanwara was transferred from Noh Jhil to Mát, and about the same time Imlak Sawad Kasba was raised to a separate village ; while at the present settlement Bhagat Bukrelia of Musmina and Saidgarhi of Barauth have been separated off from their parent estates, Husanpur split up into its three separate estates of Mukrandgarhi, Jarelia, and Husanpur, and the two Lanas, Kaufana and Musmina, which, though distinct, were before settled together, separated. Noh Jhil therefore now consists of 100 khalsa villages. Besides Bhadanwara received by Mát from Noh Jhil, 17 villages of talúka Dunetiya were transferred to it from Ráya in 1861, and at the same time 9\* villages were transferred to Mahában. During the settlement Nagla Birbala has been separated from Harnaul, and of the muáfi estates Hauli Guzar was resumed in 1851 and Jarara in 1852, on the deaths of their respective life grantees. Jahángirpur is the only existing revenue-free estate. Mát at present therefore contains 56 khalsa and 1 muáfi village.

Mát-Noh Jhil is bounded on the north and east by zila Aligarh, on the south by pargana Mahában, and on the west by the river Jumna. At the village of Jahángirpur, however, the river is not the boundary, as when by a sudden change of the stream some years since the khádar of that village was cut in half, it was awarded the portion that had gone over to the Muttra side. Except from Bhadora southwards, the Jumna ravines are nowhere deep or rugged along the present bank of the river, and the soft yielding soil presents but little impediment to the force of the stream. It is not therefore surprising that there are three depressions in the surface which must, judging both from the character of the soil and the presence of ravines, had been at one time beds of the river. These depressions have been already described. The only stream in the tahsil besides the Jumna is a tiny rivulet known as the Patwaha, which takes its rise in the Dhankuar jhil of Bulandshahr, and which flows for a short time in the rainy season. Even before it joins the old bed of the Jumna in Barauth, it runs through a considerable valley with each side marked by its system of raviny land ; and as it seems inconceivable that so tiny a brook that flows for so short a time every year can have wrought such a change in the face of the country, I should suppose that either

originally the stream was a more important one than it is now, or else that a considerable backwater from the Jumna used to run up it. In its tarái kharif crops can be sown here and there with but little fear of injury, whilst in most places the actual bed is sown to rabi.

These depressions, with their lines of ravines stretching back into the heart of the tahsíl, cause necessarily a prevalence of sandbanks and of lighter soil. In the Noh Jhíl pargana, specially west of the Patwaha, the lines of sand rise 20 or 30 feet above the general level, and form one of the chief features of the country. Omitting smaller patches, there are the following important systems of sandhills:—

1. The hill starting from the edge of the Noh Jhíl depression near Manigarhi and passing into the Aligarh district.
2. The hill leaving the same depression near Nurpur, running north to Awa Khera, and thence north-east to Mithauli.
3. The network in the re-entering curve of the depression already mentioned.
4. The line on the south of the Noh Jhíl depression from Noh to Firozpur.
5. The line running up the right bank of the Patwaha and combined with the ravines.
6. The line marking the edge of the present khádar cliff in Baghara and Baranth, and in places down the whole length of the tahsíl.
7. The system commencing in Nasithi on the south, and running thence north to Khyanmal, and connected with the third of the old river beds noted above.
8. The sandhills of Hasanpur and Naoli, which, as far as I can trace, are unconnected with either the present or former beds of the river.

The prevailing soil all over is a light sandy loam, in the composition of which sand rather predominates over the clay; but in almost all the villages there are larger or smaller veins of a richer, firmer soil, which equals dumat in its productiveness. In some villages of Mát this richer soil is nearly as frequently found as the poorer; but in Noh Jhíl this is rarely the case, and the firm loam in these villages takes the place of tarái land in the loam villages, except that, from the more porous nature of the soil, the surface water drains off easily, and the autumn crops are rarely injured. This light loam has been classed as bhúr, and with it has been included a hard, red, poor loam found near ravines, as in Marhuaka and Sigoni, locally known as pironda.

As the line dividing the bángar from the khádar has been drawn with reference to future possible fluvial action, there has been included in the latter much land that is really upland soil, and which has been assessed as such. The khádar proper is purely alluvial, and varies from a sticky clay to a rich dumat, with here and there some tracts of sand. In this tahsíl there are two classes of khádar: first, that of the Noh Jhíl, and secondly, that of the river. In the former the clay soil prevails, in the latter the dumat, the result of the "pahs" already described. In very few places does the river flow directly under the upland cliff; the khádar is therefore everywhere fairly extensive.

The tahsíl is most inconveniently situated at the extreme south of the jurisdiction in the village of Mát. When, in 1861, the two parganas Communications, &c. were amalgamated, the choice lay between the two old tahsíl towns of Mát and Noh, or an entirely new site. Mát was chosen as being the nearest to headquarters, though Surír, which is a place of equal importance with Mát, and which was then suggested as an alternative, is the most natural centre. Mát-Noh Jhíl is a byway leading nowhere, and there are no metalled roads. An unmetalled road, which is bridged as far as Mát, runs from the bridge over the Jumna at Brindaban to Noh, with a branch from Akbarpur to Khair. There is another unmetalled road from Mát to Ráya, and a third from Bajna through Noh to Shergarh. With these exceptions the roads are mere cart-tracks, on some of which a few rupees are annually spent in repairs. Among the loam villages these village tracks are excellent, but elsewhere on



these and even on so-called made roads the depth of sand is a great obstacle to easy communication. The north of the tahsil has been lately still more isolated by the abandoning of the metalled road from Chhāta to Shergarh.

Most of the markets for local produce lie outside the tahsil. Cotton goes to Koil and Hāthras, and grain to Kosi, Muttra, Brindaban, or Hathras, according to the locality. Some of the larger villages have *penths* or weekly fairs, at which the coarser kinds of cloth, shoes, and petty wares are bought and sold; but the only market of any importance is held in the village of Bajna in pargana Noh Jhīl. A cattle market is held every Thursday in Patti Dilu, at which the zamindars collect two annas per animal sold; but the chief market, and one at which villagers for many miles round assemble, is held on Saturday in Patti Sehu. The zamindars collect two kinds of dues: 1st, fees called weighing-fees, collected from purchasers; and 2nd, an octroi on every kind of article brought to the bazar to be sold, payable by the sellers. The chief traffic is in grain. The dues in both markets are farmed by the zamindars, and bring them in an income of from Rs. 400 to Rs. 500 yearly. There is no manufacture in either pargana beyond some weaving of country cloth in some of the larger villages.

With the exception of the Noh Jhīl, the Moti jhīl near Māt, and a few other ponds in the khādar, none of which are used to any extent for irrigation, jhils are unknown, and from the uneven surface the drainage is so good that there are comparatively few places where the rain water collects even during the monsoon months. Many villages have tanks, but irrigation from them is so rare that in a general review any notice of them may be excluded. In the river valley water is in some cases taken from the main river or from the smaller water-courses for a few fields lying near them, especially for melons in the hot weather, and for Indian-corn should the rains fail. One of the distributaries of the Ganges canal has a course of about three miles in this pargana, and then comes to an end. It enters the pargana at Himdpur, passes through Shankargarhi, and ends in Bajna. From it are irrigated a few fields in Himdpur, Garhikaular, Shankargarhi, Badauth, and two of the Bajna Pattis (Dilu and Sultan). But even close to its course it has not superseded kucha wells, which are dug and used as before; in fact, as it is the mere tail of the distributary, the supply of water is intermittent, depending on the quantity withdrawn higher up. Bejhar, therefore, which is a crop not requiring much or constant irrigation, is chiefly grown under it. Wheat where attempted is not very good, and cane is unknown. A careful study of the rates paid showed that in the small area irrigated from this bit of the canal they did not differ from those paid for land irrigated from wells; no special notice of it was taken in fixing, rates the area irrigated from it being treated with the area irrigated from wells. The Māt branch of the Ganges canal will, if constructed, pass through several villages of the tahsil down its whole length south of the Patwaha; the only important sources of irrigation are therefore pukka and kucha wells. In so uneven a tract of country the depth to the water varies very considerably even within the limits of the same estate. In the more level tracts the average depth may be taken as about 30 feet, and it is nowhere much greater than this. The worst or oily salt water is almost confined to Muinuddinpur and some neighbouring villages. The salt water is more distributed; it is found along the edge of the old ravines, as in Marhuaka and Sigoni, and further south in Dandisra and some neighbouring villages, as well as in isolated spots elsewhere. There are 960 masonry wells with 2,113 laos in use for irrigation, while of kucha wells there are 4,050 with 4,132 laes. The average area commanded by each lao is close on 9 acres. The well returns for the last settlement are not available for comparison by reason of the changes in the constitution of the parganas since that date. The kinds of water in the wells are returned as follows under five main heads:—

Sweet	...	...	3,503	Bitter	...	21
Brackish	...	...	622	Bitter and oily	...	15
Salt	...	...	552			

Of garwari there are 1,263, of ajhar 2,655, while there are only 112 unprotected wells in use. Since Mr. Tyler reported on the parganas they have made great strides in the extension of irrigation. At the last settlement the irrigated area was 50 per cent. of the cultivated in Mát, it is now 72 per cent. ; in Noh Jhil it was 34 per cent., it is now 55 per cent.

The cultivation is all round good. Even in the villages where the cultivators are Jais, (impure) Thákurs, the tillage is much more close and careful than among the Gorwas across the Jumna, while among the Játs, who form the majority of the agriculturists, it is good. Cane is not grown except in the khádar and in a few villages to the south of the pargana, and even in them it is grown but sparsely. Except in the villages as Hasanpur and Karahri, where Kachhis cultivate, there is nothing at all superior in the home lands, which are wonderfully uniform in quality. Double-cropping is the rule, and in the better ones tobacco is grown either by itself or as a second crop after cotton, while in some barley is sown early in November between the rows of cotton, and with irrigation the crop sprouts and is well above the ground before the cotton stalks are cleared off. There are two indigo factories—one at Karahri and the other at Arna, both branches of the main concern at Chatua. Besides these there are a few vats belonging to the more enterprising of the zamíndars ; the plant is grown to some extent in the villages along the Aligarh border from Bhabanwara southwards. In the khádar lands, especially the katris or rich fields nearest the river, double-cropping is far from uncommon. Indian-corn is followed by wheat ; or Indian-corn and juar in the katris by melons. Such crops are, however, very uncertain. Where sugarcane is grown, as in the Mát khádar, it is sometimes allowed to stay two years successively in the ground ; this custom is known as *peri*.

During the period of settlement cultivation has increased 13 per cent. in both parganas. A very large proportion of the culturable waste lies in the Noh Jhil ; the remainder is mostly inferior land, or in small patches scattered over the cultivation.

The area recorded as covered with baisuri is 3,830 acres in Mát and 233 acres in Noh Jhil. In the latter pargana it may practically be neglected ; it occurs nowhere in any quantity except in the village of Mahá-dumpur. In Mát it affects the villages on the south from Dunetiya to Nasithi, and those found in the line from Harnaul northwards to Baikuntpur. Compared with Mahában, therefore, and the parganas to the east, the weed is hardly known.

*Mát bángar.*

Crop statistics.

Kharif.					Rabi.					GARDEN CROPS OR KACHHIDANA.				
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Kharif.	Dofasil.	Total.			Kharif.	Dofasil.	Total.			Kharif.	Dofasil.	Total.	
Sugarcane ...	4	...	4	0.01	Wheat ...	7,794	648	8,442	18.69	Tobacco ...	37	73	109	0.23
Cotton ...	5,901	174	6,075	11.82	Barley ...	2,019	967	2,986	6.91	Other crops, ...	360	41	401	0.79
Indian-corn, ...	6	831	837	1.75	Bejhar ...	11,209	149	11,358	22.46					
Juar ...	12,603	871	13,474	26.65	Gram ...	915	189	1,104	2.19					
Báira ...	1,352	177	1,529	2.88	Gojai ...	1,208	218	1,421	2.81					
Rice ...	1	1	2	...	Other crops, ...	89	43	132	0.26					
Indigo ...	46	85	131	0.26						Total ...	397	113	510	1.01
Hemp ...	4	19	23	0.05										
Khurti ...	895	80	975	1.88										
Other crops, ...	1,676	54	1,730	3.42										
Total ...	22,268	2,332	24,610	48.67	Total ...	23,354	2,209	25,443	50.82	Area under arhar ...	12,000			

## Mât khadar.

KHARIF.					RABI.					GARDEN CROPS OR KACHHIYANA				
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.	
Sugarcane ...	158	...	158	2.14	Wheat ...	1,389	110	1,479	20.68	Tobacco ...	5	20	25	0.35
Cotton ...	609	71	760	10.63	Barley ...	538	251	789	11.03	Melons ...	78	2	75	1.05
Indian-corn, ...	...	113	113	1.58	Bejhar ...	1,095	111	1,206	16.86	Other crops,	66	12	78	1.08
Juár ...	842	283	1,125	15.73	Gram ...	87	17	54	0.75					
Bájra ...	340	82	422	5.90	Gojal ...	204	34	238	3.33					
Indigo ...	...	8	8	0.04	Other crops,	25	30	55	0.77	Total ...	140	34	174	2.40
Khurti ...	225	17	242	...										
Other crops,	317	18	335	4.69										
Total ...	2,566	587	3,153	44.09		3,268	553	3,821	53.42	Area under arhar ...				527

Total crop area bángar and khádar both 57,715 + fallow 406 = 58,121  
Deduct dofali 2,909 + cultivated musáfi 1,442 = 4,351

Net khalsa cultivation 53,770

## Noh Jhíl bángar.

KHARIF.					RABI.					GARDEN CROPS OR KACHHIYANA.				
Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.	Crops.	Area.			Percentage of whole crop area.
	Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.			Ekfaali.	Dofaali.	Total.	
Cotton ...	5,779	230	6,009	11.60	Wheat ...	5,891	1,130	7,021	13.56	Tobacco ...	42	102	144	0.28
Indian-corn, ...	1	1,097	1,098	2.12	Barley ...	1,564	807	2,371	4.58	Other crops,	109	63	172	0.49
Juár ...	10,851	1,175	12,026	23.22	Bejhar ...	12,818	315	13,133	25.36					
Bájra ...	2,014	240	2,254	4.35	Gram ...	1,008	207	1,215	2.34					
Indigo ...	...	2	3	0.01	Gojal ...	855	197	1,052	2.09					
Hemp ...	...	39	46	0.09	Other crops	234	136	369	0.71	Total ...	231	165	396	0.77
Khurti ...	890	107	997	1.93										
Other crops,	3,697	66	3,763	7.27										
Total ...	23,240	2,956	26,196	50.52	Total ...	22,397	2,791	25,188	48.64	Area under arhar ...				9,352

## Noh Jhíl khádar.

Sugarcane ...	...	...	...	...	Wheat ...	2,639	32	2,671	26.65	Tobacco ...	8	10	18	0.14
Cotton ...	238	35	273	2.83	Barley ...	1,372	84	1,456	15.09	Potatoes ...	83	5	88	0.91
Indian-corn, ...	...	29	29	0.30	Bejhar ...	2,904	29	2,933	30.39	Melons ...	69	4	73	0.75
Juár ...	252	52	304	3.14	Gram ...	522	6	528	5.47	Other crops,				
Bájra ...	76	74	150	1.56	Gojal ...	740	7	747	7.74					
Khurti ...	141	7	148	1.55	Other crops ...	109	26	135	1.40					
Other crops,	195	6	201	2.08										
Total ...	902	203	1,105	11.46	Total ...	8,186	184	8,370	86.74	Total ...	155	19	174	1.80
										Area under arhar ...				101

Total crop area bángar and khádar both 61,429 + fallow 276 = 61,705  
Deduct dofali 2,159 + cultivated musáfi 439 = 2,598

Net khalsa cultivation 58,107

Of the 157 villages composing the tahsil only 30 are zamindari pure and simple; in the remaining 127 the village communities still retain more or less of their old rights. Of these 127, 13 are biswadari villages, in which Rája Tikam Singh, as over-proprietor, receives a fixed sum as malikana : these villages form part of talúka Dunetiya ; of the other 4 villages of this talúka 3 are owned by the Rája himself and one by a near relation. Where the village communities hold their own the tenures are nowhere difficult or complicated, and contain no peculiarity worth noting here. In almost all the area owned by each sharer is known and recorded, and the share of the Government revenue and other burdens due from him determined. Dhar-baohh, which is so common across the Jumna, was found but in few villages. Jahangirpur is the only revenue-free estate in the tahsil ; the zamindars of it were settled with at the last settlement, but some years since, from internal disputes, this arrangement broke down ; they have been again admitted.

The following statement shows the population of the tahsil at the time of the preparation of rough records distinguished according to castes :—

Caste.	Mat.				Noh Jatl.				Total.			
	Ploughs.	Agriculturists.	Non-agriculturists.	Total.	Ploughs.	Agriculturists.	Non-agriculturists.	Total.	Ploughs.	Agriculturists.	Non-agriculturists.	Total.
1. Játas ...	732½	4,736	671	5,407	2,449½	15,102	1,387	16,489	3,188	19,838	2,058	21,896
2. Brahmans ...	1,241	7,958	2,463	10,421	927½	6,285	2,244	8,529	2,168½	14,243	4,707	18,950
3. Chamárs ...	338	3,113	5,568	8,673	287½	2,391	5,359	7,750	625½	5,504	10,919	16,423
4. Thákurs ...	1,385½	7,442	876	8,318	123	721	87	808	1,408½	8,163	963	9,126
5. Baniyas ...	34	525	2,318	2,843	33	310	2,616	2,926	67	835	4,934	5,769
6. Barhais ...	34	334	791	1,159	31½	280	764	1,044	65½	614	1,555	2,169
7. Kolis ...	...	6	872	878	...	...	1,608	1,608	...	6	2,480	2,486
8. Khatiks ...	8½	80	701	781	18½	209	1,194	1,403	27	289	1,895	2,144
9. Nais ...	9½	161	914	1,075	12	205	850	1,055	21½	361	1,764	2,130
10. Garariyas ...	73	752	880	1,632	22½	187	241	428	95½	939	1,121	2,060
11. Kumhars ...	4	47	610	657	1	0	630	639	5	56	1,240	1,296
12. Mallahs ...	77	620	911	1,531	113	735	870	1,605	190	1,355	1,781	3,136
13. Bhangis ...	0½	31	933	964	1	45	1,271	1,316	1½	76	2,204	2,280
14. Bairagis ...	63	731	933	1,664	25½	292	508	800	88½	1,028	1,441	2,446
15. Kachhis ...	42	224	216	540	38	238	79	310	80	562	388	850
16. Musalmans ...	78½	669	1,913	2,582	105	1,003	2,059	3,062	183½	1,672	3,972	5,644
17. Other castes ...	57	538	2,777	3,315	90½	696	2,980	3,676	147½	1,234	5,757	6,991
Total ...	4,084	28,067	24,339	52,406	4,279	28,708	24,740	53,448	8,263	56,775	49,979	105,844

Abstracting this, we find that the four chief castes bear the following proportion to the whole population, and own the following proportion of the whole number of ploughs :—

Caste.	Mat.		Noh Jatl.		Total.	
	Ploughs.	Population.	Ploughs.	Population.	Ploughs.	Population.
Játas ...	18·07	10·31	57·24	30·85	38·09	30·69
Brahmans ...	30·38	19·88	21·66	15·95	25·92	17·90
Chamárs ...	8·24	16·54	6·7	14·5	7·47	15·51
Thákurs ...	31·46	15·87	2·87	1·5	16·83	8·53
Total ...	88·15	62·60	88·47	62·85	88·31	62·71

The areas of the parganas have at various times varied too much for any comparison of the total population at the different censuses to be of any use, but the density of the population at the last settlement and now is as follows :—

	Mat.	Noh Jatl.
1834. Density per square mile ...	304	287
1876. (Preparation of rough records)	494	460

In forty-two years, therefore, the population has increased very nearly 40 per cent. in both the parganas. At last settlement there was 1·68 acres of cultivation to every man, woman, and child in Mát, and 1·75 acres in Noh Jhíl ; there is now only 1·05 acres in the former and 1·09 acres in the latter.

The following statements show the position held by each caste in the ownership of the land :—

*Mát.*

Caste.	Resident.			Non-resident.			Total.		
	No. of owners.	Area owned in acres.	Average holding.	No. of owners.	Area owned in acres.	Average holding.	No. of owners.	Area owned in acres.	Average holding.
Thákurs ...	1,529	14,134	9·2	155	1,427	9·2	1,684	15,561	9·2
Brahmans ...	951	8,524	8·9	247	8,143	32·9	1,198	16,667	13·9
Játs ...	611	6,055	9·9	85	2,777	15·6	696	8,832	11·8
Baniyas ...	107	2,760	25·7	120	15,995	100·7	227	18,755	65·4
Musalmans ...	70	1,398	19·9	20	3,915	195·7	90	5,313	59·0
Kayaths ...	7	833	119·0	7	97	13·7	14	1,804	128·9
Rangji temple	...	...	...	4	1,378	314·5	4	1,378	344·5
Other castes	73	766	10·4	21	528	25·1	94	1,294	13·7
Total	3,348	34,470	10·2	659	30,634	46·4	*4,007	65,104	16·2

						Acres.
Area owned by proprietors	...	...	...	...	...	65,104
Muáfi	...	...	...	...	...	2,537
Land appropriated by Government	...	...	...	...	...	143
						<u>67,783</u>

*Noh Jhíl.*

Caste.	Resident.			Non-resident.			Total.		
	Number of owners.	Area owned in acres.	Average holding.	Number of owners.	Area owned in acres.	Average holding.	Number of owners.	Area owned in acres.	Average holding.
Játs ...	3,361	28,741	8·5	992	9,599	9·7	4,353	38,340	8·8
Brahmans ...	863	7,999	9·3	147	4,144	28·2	1,010	12,143	12·0
Baniyas ...	30	1,565	52·2	54	1,166	21·4	84	2,731	32·5
Dwarka Dhis temple	...	...	...	31	11,810	381·0	31	11,810	381·0
Thákurs ...	87	2,001	23·0	7	570	81·4	94	2,571	27·3
Kayaths ...	...	...	...	29	4,170	143·8	29	4,170	143·8
Musalmans ...	104	1,036	9·9	49	745	15·2	153	1,781	11·6
Other castes	26	58	2·2	1	67	67·0	27	125	4·6
Total	4,471	41,400	9·2	1,310	32,271	24·6	*5,781	73,671	12·8

						Acres.
Area owned by proprietors	...	...	...	...	...	73,671
Muáfi	...	...	...	...	...	515
Land appropriated by Government	...	...	...	...	...	73
						<u>74,259</u>

In Mát resident proprietors own 53 per cent. of the area, and in Noh Jhíl 56 per cent. In Noh Jhíl resident proprietors own on the average in each village 9·3 acres, and non-resident 24·6 acres ; while in Mát resident proprietors similarly hold 10·2 acres, and non-resident 46·4 acres. The subdivision of property is therefore very minute.

This statement shows the holding of cultivators according to castes, with the rate of rent paid for land at preparation of the rough records.

\* These are the totals of the proprietors in each village, so that a person owing in several villages is recorded as many times as there are villages in which he owns.

## Mat.

Caste.	Str.			Ex-proprietary tenants.				Tenants with occupancy rights.					Tenants-at-will.					
	Number.	Area.	Average holding.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.
Acres.	A.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.						
Brahmans ...	527	3,021	5.7	6	30	...	5 0 0	714	4,509	18,392	6.3	4 1 3	1113	8,720	44,783	7.8	5 2 3	
Játs ...	221	2,066	9.3	10	210	1,327	21.0	6 5 1	318	2,853	12,516	9.0	4 6 2	575	5,013	28,256	8.7	5 10 2
Thákurs ...	754	4,783	6.3	4	10	38	2.5	3 12 10	488	3,065	11,784	6.3	3 13 6	1266	9,525	46,413	7.5	4 14 0
Muhammadans ...	42	280	5.5	1	6	18	6.0	3 0 0	48	271	1,068	5.4	3 15 1	141	850	4,376	6.0	5 0 6
Chamárs ...	...	...	...	...	...	...	...	...	111	628	3,056	5.7	4 13 10	415	2,654	14,176	6.4	5 5 5
Baniyas ...	43	270	6.3	...	...	...	...	...	51	238	899	4.7	3 12 6	68	193	1,048	3.0	5 7 0
Garariyas ...	...	...	...	...	...	...	...	...	43	262	1,153	6.1	4 6 5	62	489	2,671	7.9	5 7 5
Barhais ...	...	...	...	...	...	...	...	...	23	111	478	5.0	4 4 11	46	214	1,280	4.7	6 0 0
Kachhis ...	...	...	...	...	...	...	...	...	21	170	1,159	8.1	6 13 1	39	163	1,346	4.2	7 10 4
Náis ...	...	...	...	...	...	...	...	...	15	56	315	3.7	5 10 0	35	81	456	2.3	5 10 1
Mallahs ...	...	...	...	...	...	...	...	...	22	177	653	8.0	3 11 0	98	483	1,865	5.0	3 13 10
Other castes ...	83	42	1.3	...	...	...	...	...	100	600	2,461	6.0	4 1 7	306	906	4,672	4.4	5 2 7
Total ...	1620	10,411	6.4	15	232	1,413	15.5	6 1 5	1954	12,940	53,935	6.6	4 2 9	4061	22,291	1,51,142	7.2	5 2 7

## Noh Jhll.

Caste.	Str.			Ex-proprietary tenants.				Tenants with occupancy rights.					Tenants-at-will.					
	Number.	Area.	Average holding.	Number.	Area.	Rent	Average holding.	Rate of rent.	Number.	Area	Rent.	Average holding.	Rate of rent.	Number.	Area.	Rent.	Average holding.	Rate of rent.
Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.				
Játs ...	2628	18,120	6.9	233	183	16.5	5 8 9	1203	7,085	23,160	5.9	3 2 2	1440	10,516	40,413	7.3	3 13 6	
Brahmans ...	649	4,469	6.9	...	...	...	...	545	2,767	7,901	5.1	2 13 8	673	4,548	18,988	6.7	4 2 7	
Thákurs ...	81	862	10.6	...	...	...	...	80	539	1,861	6.7	3 7 3	50	537	1,351	10.7	2 8 3	
Muhammadans ...	96	372	3.8	...	...	...	...	85	267	986	7.6	3 11 1	126	458	1,405	3.6	3 1 1	
Chamárs ...	...	...	...	...	...	...	...	78	517	1,771	6.7	3 6 9	316	2,252	8,888	7.1	3 15 3	
Baniyas ...	16	62	3.9	...	...	...	...	18	121	280	6.7	2 5 0	57	287	1,150	5.0	4 0 1	
Garariyas ...	...	...	...	...	...	...	...	17	145	354	8.5	2 7 1	23	144	374	6.3	2 9 7	
Barhais ...	...	...	...	...	...	...	...	32	110	495	3.4	3 10 10	31	136	643	4.4	4 11 9	
Kachhis ...	...	...	...	...	...	...	...	2	6	47	3.0	7 13 4	44	244	1,342	5.5	5 8 0	
Nais ...	...	...	...	...	...	...	...	11	30	41	2.7	1 5 10	16	82	393	5.1	4 12 3	
Mallahs ...	...	...	...	...	...	...	...	63	337	1,032	5.3	3 0 11	151	931	3,647	6.2	3 14 9	
Other castes ...	38	64	1.7	...	...	...	...	96	485	1,330	5.1	2 11 10	216	907	3,368	4.2	3 11 4	
Total ..	3510	23,949	6.8	253	183	16.5	5 8 9	2180	12,389	38,168	5.7	3 1 3	3143	21,042	81,959	6.6	3 14 3	

Of the whole cultivated area, therefore, in Noh Jhll 41 per cent. is sir, 21 per cent. right of occupancy, and 36 per cent. non-right of occupancy, while in Mat the proportions are 19, 24, 54 per cent. respectively.

Description.	Mat.					Noh Jhll.				
	Number of holders.	Area.	Rent.	Average holding.	Rate.	Number of holders.	Area.	Rent.	Average holding.	Rate.
		Acres.	Rs.		Rs. a. p.		Acres.	Rs.		Rs. a. p.
Sir ...	1,620	10,411	1,212	6.4	...	3510	23,949	7,108	6.8	...
Ex-proprietary tenants ...	15	232	1,413	15.5	6 1 5	2	38	183	16.5	5 8 9
Land held by resident tenants with occupancy rights	1,565	10,544	45,516	6.9	4 2 6	1733	9,848	30,205	5.7	3 1 1
Land held by non-resident tenants with occupancy rights.	369	1,996	8,419	5.4	4 3 6	447	2,541	7,963	5.7	3 2 4
Land held by resident tenants-at-will.	3,546	24,319	1,27,654	7.2	5 3 9	2108	14,990	59,546	7.1	3 15 7
Land held by non-resident tenants-at-will.	715	4,973	23,488	6.9	4 11 8	1035	6,052	22,413	5.8	3 11 3
Rent-free land granted by zamindars.	455	564	...	1.2	...	640	521	...	0.6	...
Cultivated gardens ...	...	332	12	...	...	...	173	1	...	...
Total ...	8,105	53,770	2,07,714	...	...	9475	58,107	1,97,459	...	...

The following abstract will show the number of villages (as they now exist) held by the different castes when we first occupied the country :—

<i>Pargana Noh Jhil.</i>						Villages.
Nohwar Játs	...	...	...	...	...	66½
Narwar Játs	...	...	...	...	...	13½
Jais (Impure) Thákurs	...	...	...	...	...	2
Brahmans	...	...	...	...	...	9
Malkanas (originally Játs)	...	...	...	...	...	4
Malia Játs	...	...	...	...	...	2
Káyath	...	...	...	...	...	1
Tehnua Játs	...	...	...	...	...	1
Bayad	...	...	...	...	...	1
						100
<i>Pargana Mdt.</i>						
Jais (impure) Thákurs	...	...	...	...	...	20
Pachahra Játs	...	...	...	...	...	18
Brahmans	...	...	...	...	...	6
Malkanas (originally Játs)	...	...	...	...	...	2
Mitha Játs	...	...	...	...	...	3
Gobar Játs	...	...	...	...	...	2
Rawat Játs	...	...	...	...	...	2
Kuar Játs	...	...	...	...	...	1
Bilhawar Játs	...	...	...	...	...	1
Renkwar Játs	...	...	...	...	...	1
Miscellaneous castes	...	...	...	...	...	1
						57

Mr. Elliot, the Collector, in 1809, remarked on the absence of mahájans and bankers, and though some of these men are now getting a footing in the pargana, they have much less influence here than in most other parts of India. The only outsiders who ever acquired by purchase large estates were Lalkhánis. Ranmast Khan, son of Dundi Khan, was, as I have said, the first farmer after the conquest. He had two brothers, Ashraf Khan and Mazhar Ali Khan. Mazhar Ali Khan was a tahsildar of Mahában, and another, Lalkhání, a relation, was tahsildar of Noh Jhil; somewhat perhaps assisted by this, the family acquired several villages from the Nohwars. Ashraf Khan, who lived at Nanakpur, died before the mutiny, having left his property to his nephew and adopted son, Umrao Bahadur, son of Mazhar Ali Khan. Rahim Ali Khan was also another son of Mazhar Ali. At the outbreak of the mutiny the family owned the following villages and shares of villages :—

*Umrao Bahadur.*—Nanakpur, Firozpur, Lana Makhdumpur, Lana Musmina, Lana Kaulana, Manigarhi, Maruaka, Khwajapur entirely, and shares in Abhaipura, Mangal-khoh, Chinparai, Naoli, Lana Kasba, Noh, Barauth, Dilupatti, while Faridampur and shares in Shal and Dilupatti were mortgaged to him.

Mazhar Ali Khan owned Jafarpur and Nurpur. Rahim Ali Khan owned Kaulana.

The whole revenue payable by them on the estates they owned was Rs. 16,244-3-0.

At the first signs of anarchy they were turned out of the pargana by the villagers. They immediately joined the rebels. Umrao Bahadur was killed at Delhi; Mazhar Ali Khan died while with the mutineers somewhere near Bareilly; and Rahim Ali Khan, who had joined in Firoz Shah's plunder of Jalesar, was transported for life. Their estates were confiscated; the mortgaged villages were restored to the original proprietors on their agreeing to pay up the mortgage money due by instalments; and the remainder, after being held direct for a short time, were by the order of the Government of India (No. 5488, dated September 7th, 1859) conferred for mutiny services, free of

revenue, on Seth Lakhmin Chand for his life, and on half-revenue for the life of one descendant. Lakhmin Chand died in 1867, and was succeeded by his son Raghunath Das, who made over the zamindari rights in the villages to the Dwarka Dhi's temple in Muttra, retaining the half-revenue for his own enjoyment.

To the south of the colony of Nohwars and Narwars lies an equally compact colony of Jais (impure) Thákurs. They colonized the villages from Dangauli on the south to Mirpur on the north, along the river face and to the north of Harnaul, spread over the whole breadth of pargana Mát. In number of villages the colony may seem insignificant, but in area they cover nearly two-thirds of the pargana. Their traditions point to a home originally in Kanhur, and their first halting-place in this district was in Jait of pargana Muttra; but abandoning that place to the Kachhwahas, they emigrated across the Jumna, and from the villages of Mát and Khyanmal, which the earliest settlers founded, their descendants spread over the pargana. To a great extent they retain their possessions. The most important of their losses are the large villages of Bhadanwara and Uhawa, which were purchased at sales for arrears of revenue by the Lalkhani, Dildar Ali Khan. Dildar Ali Khan was killed by his tenants at the first commencement of the disturbances. South of the Jais lies a colony of Játs of mixed clans—Pachahras, Mithas, Gabars, and others—who emigrated from the Mahában pargana. Among these the family priests have usually been given shares in the village, and not separate estates as in Noh Jhil.

The north and south of the tahsil have therefore been colonized from the east, and the centre from the west. Of the inhabitants whom the emigrants found there no traces now remain. All the traditions point to earlier races—Dhakras in the south and Biluches in the north—with whom the invaders had a hard struggle before they were mastered. The Dhakras are represented as Rajputs, and the Biluches as Muhammadans; there are still some villages across the Jumna held by these latter.

The following statement shows the area which has been the subject of transfer since we conquered the country. Land which has been transferred more than once appears in this statement only once under the head of the transfer to which it was last subject :—

Name of pargana.	Total area.	Private sale.	Auction in execution of decree.	Auction for arrears of revenue.	Mortgage.	Gift.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Mát. ...	64,118	18,471	3,960	3,672	9,136	4,676
Noh Jhil ...	72,893	8,191	2,177	4,404	2,696	12,924
Total ...	1,37,011	23,662	6,137	8,076	11,832	17,594

Of this there have been transferred during settlement from the persons with whom the last settlement was concluded :—

Name of pargana.	Private sale.	Auction in execution of decree.	Auction for arrears of revenue.	Mortgage.	Gift.
	Acres.	Acres.	Acres.	Acres.	Acres.
Mát ...	14,275	3,960	3,672	9,035	4,676
Noh Jhil ...	7,061	2,177	4,404	2,587	12,924
Total ...	21,356	6,137	8,076	11,612	17,594



Of the 12,924 acres entered as transferred in Noh Jhíl by gift, nearly 12,000 acres have been given by Seth Ragbunath Dás to the Dwarka Dhí's temple. A portion of this land was previously sold for arrears of revenue, and the whole of it was confiscated for mutiny. After the mutiny 21 villages and parts of villages were confiscated for the share borne by their owners in the plunder of the tahsíl. All of them however, with the exception of Bhenrai, Marahla Mukha, and Sigoni, were released on the payment of a fine of half a year's revenue. These three villages were sold on the failure of the zamíndars to pay a similar penalty. Making allowance for these facts, it will be seen that coercive measures have entered more largely than usual into the revenue administration of the tahsíl. In part this may have arisen from the intrigues of the Lalkhánis, who profited most largely by it, but to a great extent it is to be attributed to the character of the country; for a large number of the villages referred to lie immediately round the Noh Jhíl, and although Mr. Tyler reduced the revenue on almost all these villages, it would appear that he had not taken the peculiarity of the tract sufficiently into consideration. An analysis points to the same conclusion.

There are 24 villages in, or owning land in, the jhíl. The villages of Kaulana, Marhuaka, Manigarhi, Nanakpur, Nurpur, and parts of Abhaipura and Noh have been sold for arrears of revenue. Jafarpur and Firozpur were sold privately. Sigoni and Bhenrai were sold for failure of payment of the mutiny fine. The settlement of Musmina broke down, and after a farm the revenue had to be reduced. Half of Rangarhi was farmed for arrears. Udhanpur, Baghai, Imlak Sawad Kasba, and Sehupatti have but a small share in the jhíl. Both the Lanás were at last settlement owned by Government, who, as a consolation, after some lessees had been ruined by the heavy impost, made over to them the proprietary rights, but at a reduced assessment; one of these is held now at half-revenue by Ragbunath Dás, the revenue of the other has been frequently remitted. Of the three Arazi Kashts, the zamíndars of one refused to engage, and a lessee even could be rarely found for it; the revenues of the other two were frequently remitted. There remains only the villages of Sotipura and Toli; the whole of the former has been mortgaged, and the mortgage only paid off by the sale of half during the period of settlement, while the revenue of the latter was frequently remitted.

The pargana of Noh Jhíl was farmed to Ranmast Khan, the son of Dundi Khan, for the first triennial settlement from 1213 to 1215 fasli for 69,000 Brindaban rupees annually. But this measure, which was adopted merely on the ground of policy, in order to secure the allegiance of a turbulent subject, was entirely unsuccessful, and before the conclusion of the period his exactions rendered his expulsion necessary. He held the pargana for the two years 1213 and 1214, and during the time he collected on an average over Rs. 1,30,000 yearly from the mahál. In 1215 occurred the famine of 1807-08, and in the temporary arrangements made in that the last year of the settlement with the zamíndars, Mr. Russell, the Collector, made great allowances for the exactions of the previous years and the calamities of the season. The amount of this settlement I cannot exactly discover, but it was about Rs. 63,000, or less than the sum received from the farmer. The settlement for 1216-17-18 was made by Mr. Elliot, who reported the difficulty he had in finding securities, as "there is not a maháján in the pargana, and the zamíndars are so notoriously refractory that no man of property will become security for them." His settlement resulted in an increase of Rs. 12,253 for the first year and of over Rs. 44,000 for the last year. After omitting the jamas of the four\* villages in which the zamíndars refused engagement, but including those of Khwajapur, Tilkagarhi, the five villages added to the pargana from Mát, the standard jama was Rs. 1,11,471. This settlement, though a light assessment compared with the payments exacted by the farmer, appears to have worked badly in individual cases, for Mr. Furgusson, in reporting on the revision of the settlement made by him

\* Bhureka, Faridampur, Khwajapur, Tilkagarhi.

for the four years 1219 to 1222, remarks :—" In some instances the jama of 1222 (the last year of the new settlement) falls short of that of 1218 (the last year of the old). In some of these cases there is a balance still outstanding on account of 1218, and in others the whole jama has been collected, though higher than any person would be now found to engage for." His standard jama for the fourth year was Rs. 1,15,572, an enhancement of Rs. 4,101 on that of the previous one.

Of the quinquennial settlement made by Mr. Boulderson for 1223-27, which was afterwards extended by various enactments up to 1240, I have no detailed record, but it resulted in a considerable increase. The jama of 1237 was Rs. 1,24,583.

In 1238 the assessment of six villages and three biswas\* broke down, and they were farmed for 15 years at a loss of Rs. 1,784 for the first year. It would, however, appear that the assessment made by Mr. Boulderson was a very unequal one, for at the revision by Mr. Tyler decrease was given in 33 estates, half of which lay round the jhîl, as against increase taken in 51.

The settlement was essentially a mauzawar one, each village being assessed separately after a careful inspection and estimate of its capabilities, and no rates for soils were used. His revision did not extend to the farmed villages, and in the 89 villages and 17 biswas in which he revised the assessment his estimated assets were as follows :—

						Rs.	a.	p.
Jamabundi	on 47,493 acres of cultivated land	...	...	...	...	1,57,483	6	0
Ditto	on 1,737 acres resumed lands, including gardens	...	...	...	...	4,714	14	6
Ditto	on 2,537 acres new bânjar	...	...	...	...	2,551	4	9
Siwai items	...	...	...	...	...	84	0	0
						1,64,832	9	3
Amount deducted for excesses in the estimate	...	...	...	...	...	3,639	6	6
						1,61,194	2	9
Amount deducted for village expenses and haq mallkana at the rate of 25 per cent.	...	...	...	...	...	40,260	2	9
						1,20,934	0	0

His declared jamas came into force in six villages in 1241, and in the remainder in 1242. The total demand, including that of the farmed estates, was Rs. 1,30,391 in 1242, and Rs. 1,31,975 from 1253 to the end of the settlement. The net increase was therefore Rs. 7,392. The expired revenue was Rs. 1,13,986-15-2. The difference of Rs. 11,599-0-2 is explained as follows :—

Addition.		Deductions.	
	Rs.		Rs. a. p.
Resumed muafis	... 362	Withdrawal of licenses to make salt,	300 0 0
		Diluvion	... 1,965 4 0
		Land taken up for the canal	... 41 0 0
		Ditto for roads	... 54 0 0
		Reductions on account of over-assessment	... 1488 10 8
		Half revenue remitted to Raghunath Dâs	... 8,123 1 6
			1,1961 0 2
		Net decrease	... 11,599 0 2

The salt licenses were withdrawn in the two villages of Abhaipura and Sigoni, and Rs. 150 reduced from the revenue of both villages in consequence. Of the sums reduced for over-assessment, Rs. 500 was remitted to the zamîndars of Raipur by Mr. Tyler himself, and Rs. 216-10-8 reduced in Bhagat Bakrelia of Musmina, when the settlement broke down in that village, are the cases of reductions given to the original zamîndars. The other cases were those of Firozpur, Lana Kasba, and Marahla, in which reductions were given to new purchasers who were strong enough to urge their claims. The reduction in the last-named village of Rs. 278 was made as late as the year 1865.

From 1211 to 1215 the pargana of Mát was farmed to Thákur D-ya Ram of Háthras. In 1216 fasli Mr. Trant made the first zamindari settlement. The assessment seems to have been a light one ;

Mát Fiscal history. the average for the three years was Rs. 58,838, nearly Rs. 10,000 less than the demand in the years immediately preceding our occupation of the country. In only

• Lohai.  
Mát.  
Karabari.  
Akbarpur.  
Harnaui.  
Uhawa.  
Piprauli.

seven\* cases were villages farmed in consequence of the refusal of the zamíndars to engage at the proposed demand.

The demand of the last year of this settlement was Rs. 67,941.

Mr. Fergusson made the revision for the quinquennial settlement from 1219-22 ; he appears to have left untouched all

except the farmed estates. In three the proprietors were admitted to engagement at reduced revenue, so that the average demand for the settlement was only Rs. 66,740.

The quinquennial settlement was made by Mr. Boulderson for the years 1223-27, and resulted in a considerable increase, the demand being Rs. 93,435. The assessment seems to have worked well. There were no cases of recusancy, and with the single exception of an enhancement of Rs. 24 on one village, Chandpura or Asafabad, and certain changes for alluvion and diluvion, the settlement was continued on to 1238. In

1232 fasli there was a redistribution of territory, by which Mát, which had formerly been under the charge of only a peshkár under the orders of the Mahában tahsildar, was constituted with Ráya and Sonai into a separate tahsíl ; at the same time 9 villages† with a jama of Rs. 14,026 were taken from Mahában and incorporated in the pargana. The demand of 1237 for the old Mát villages was Rs. 93,135. In 1238 fasli Mr. Deedes began the revision under Regulation VII. of 1822. He only completed the settlement of four villages. Of these he increased the revenue of three‡ by Rs. 1,938, and reduced that of one§ by Rs. 195. The remainder of the revision was undertaken by Mr. Tyler, and reported on by him on November 3rd, 1834. This settlement came into effect in 1241 and 1242. In 1241 his settlement resulted in a decrease of Rs. 2,301 in six|| villages. In 1242 the revision was completed ; there was a further decrease of Rs. 125 in two¶ villages, and an increase of Rs. 11,330 in 20 others. The jama was progressive in a few cases, so that the demand of 1245, which was the standard jama, was Rs. 1,20,743. From this was afterwards deducted Rs. 64 for salt licenses taken away from four\*\* villages.

† Lohban.  
Sihora.  
Raipur Mai.  
Tayabpur.  
Kínarai.  
Isapur.  
Abdulnabipur Gokla.  
Maoli.  
Shahpur Ghausna.

‡ Surir.  
Bijauli.  
§ Nagla Birbala.

|| Jaiswan, Arua, Ilauli  
Zunardar, Bakla, Kurwara, Lalgarhi.

¶ Samoli, Hirdpur.

\*\* Arua, Uhawa, Bhadraban, Baikuntpur.

Talúka Dunetiya formed up to 1860 part of the Ráya pargana. It was after the conquest farmed to Bhagwant Singh of Mursan. It remained attached to the Aligarh district until 1840, and was settled by Mr. J. Thornton in 1834, when he admitted the biswadars to engagement in 13 out of the 17 villages of which it is composed, the total Government demand being Rs. 5,731. This revenue remained unchanged when a revision of the settlement of the other talúkas was made by Mr. W. H. Tyler in 1844 ; only fresh engagements up to the conclusion of the settlement in the rest of the district were taken from the proprietors at the old rates. The expired demand is Rs. 1,23,747-8-0. The difference of Rs. 3,004-8-0 is caused as follows :—

Additions.				Subtractions.			
			Rs.				Rs. a p.
Bhadanwara transferred in	1840	...	6,389	Revenue of 9 villages transferred to Mahá-			
				ban in 1861	...	...	16,676 0 0
Dunetiya ditto	1861	...	5,731	Diluvion	...	...	267 0 0
Ilauli Guzar resumed in	1851	...	2,867	Land taken up for Government purposes...			135 0 0
Jarara ditto	1852	...	4,510	Reduction of jama in Bhalai for land			
Resumed muáfi patches	...		188	given to Aligarh after a boundary dis-			
Alluvion	...		501	pute	...	...	89 8 0
				Reduction consequent on withdrawal of			
Total	...		20,186	licenses to make salt in four villages	...	...	64 0 0
							17,181 8 0

Net increase, Rs. 3,004-8-0.

The soils of these parganas were demarcated and the soils for assessment determined by the method of inspection, mined on the principles already described. The soils fixed and soils adopted for assessment on finally included two artificial divisions and six natural soils. The two artificial are into bāra or home lands and barha or outlying lands. No necessity for an intermediate class of manjha has arisen, as, where it exists, it assimilates in quality to the lower class of home lands in other villages.

The six natural soils are—

1. Loam or piliya.
2. Bhūr or light soil.
3. Pūth or uneven sand.
4. Tarāi or lowlands subject to flooding.
5. Behar or ravines.
6. Rankar, kalar, &c.—that is, land containing ūsar.

The first class, or loam, comprises all the really good soil of the tahsil, a rich friable loam, but little differing in quality from real dūmat. There are very few villages where it could be called the prevailing soil; it is commonest in the group of villages round Bhadanwara and Dandisra, and becomes rarer further north. It is throughout of a uniform quality, but allowances have been made at assessment for the kind of water, the prevalence or otherwise of baisuri, and similar influences which cannot be satisfactorily disposed of in classification. With this soil in quality was classed the best of the second class of natural soils, or bhūr, occurring in the higher class of villages.

This second class includes—

1. The light sandy loam known as piliya retar.
2. The hard red loam known as pironda.
3. The real bhūr or level sand.

Of this there are two main divisions, the good including the two first, and the fair including the third; but it was found necessary to make two subdivisions of the first or "good" class. In the higher of these subdivisions are included the light soil which is equal in quality to the best loam, and which is found chiefly in the villages where there is the largest area of real loam. The third class or pūth needs no description; the better fields have been taken out as fair, the remainder going as bad. In the fourth class there are similarly two subdivisions, good and fair, the position of a field depending both on the quality of its soil and its liability or otherwise to flooding. The fifth class contains the hard denuded soils with nodules of kankar which accompany Jumna ravines; in this there are three classes—good, fair, and bad. The last class, or soils containing ūsar, are not of common occurrence; they are of very various qualities, and are locally known by various names; in some the soil is hard and caked, in others light and feathery; in most the soil is natural, while in a few the quality has been introduced by the use of bad water. It has not been possible to subdivide them, as they are so various. All these classes are again subdivided into wet and dry. An examination of the home lands divided them into five classes. The ordinary home circle, which grows good cotton or bears double crops of kharif and rabi in the same year, has been put in the third class; the second class consists of the better home lands round old villages, where the cultivation and water are superior. From the first class all fields except those with kachhiyāna or garden cultivation have been excluded. The fourth and fifth classes include the inferior home lands and the outer circles of the better ones. In the home lands the distinctions of natural soil have been marked, and in making my classification I have allowed for them as far as was considered necessary; but good manure, good water, and good cultivation rapidly level natural qualities of the soil. Absolutely dry home lands are very rare.

In the Jumna khādar there are four natural soils—

1. Rich loam or dūmat.
2. A rather sandy soil approaching bhūr.
3. Clay.
4. Jumna sand.

But in demarcation a different classification was adopted, for in land of this description the value of a field depends both on its position and on the character of the soil. Five classes were therefore made :—

1. Land which in ordinary years can grow either spring or autumn crops.
2. Ditto ditto spring crops only,
3. Katris.
4. Low-lying land near nálas and jhils.
5. Jumna sand.

The third and fourth classes are really subdivisions of the second. The first class includes the fringe of lighter high-lying soil under the upland cliff, and the higher patches in the centre which are usually protected from floods. It is often irrigated from the uplands. In the second class, which is liable to some extent to flooding, the top soil is dúmat ; but Jumna sand is found at no great distance from the surface, and its quality varies as this top layer is thicker or thinner, and as reh is prevalent or absent. In this land wheat is grown, but not to the extent that it is in the third class or katris. In these the soil is for a considerable depth a rich loam and there is never any reh, but, lying as they do along the very edge of the river, they are very precarious, changing from year to year. In the fourth class the soil more approaches clay ; in productiveness they approximate to the katris, but reh is sometimes found. The lowlands of the nálas, where the drainage is good, are comparatively free from it, but it is found near ponds where the water stagnates. The last class varies continually, and only produces melons. For the purposes of assessment seven classes have been retained, the position of a field depending on the quality of its soil, the crop it can grow, and the absence or presence of reh ; of this two are of home and five of outlying lands.

But that so much of the area of the Noh Jhil is fallow, the classification of the river would with some changes have been applicable to it ; but here a classification of natural soils has been adopted which for assistance at any future five-yearly revision has been marked on the fallow. My classification is—

1. The fringe of higher lying soil under the upland cliff.
2. Magro.
3. Tari, dabua, jhawar, kunda, jhada.
4. Kil or khapra.
5. The general soil of the jhil, which is chiknot or clay.

The fringe of the upland cliff is a light soil formed by denudation, and from its position bears autumn as well as spring crops. There is a little loam and púth in it, but the rest all approximately equals in quality the bhúr. Magro is the local name for what were formerly the sandbanks of the river. The lower soil is a pure Jumna sand, and as this is nearer or further from the surface the quality of the land varies. At the best the land is inferior and is chiefly sown to bejhar, and is always dry. The third and fourth classes are found in the old river beds. The third is a rich damp clay which was formerly the best soil of the jhil and produced very fine gram and even unirrigated wheat, while in drier years autumn crops were sown. The best of the soils was the tari ; it is almost entirely fallow now from the floods, and it is the loss of this land that has been the cause of the chief damage from them. The soil called jhawar, which has been classed with the tari, is similar to it, but lies a little higher and is sometimes irrigated. The fourth class, kil or khapra, was in the best of years precarious ; it lies deep in the beds of lakes and ponds, and from submersion tari has a tendency to turn into it. The soil is readily distinguishable ; it is dark in colour, grass never grows on it, and it cracks in drying from the heat of the sun. It is now all fallow. The fifth class is ordinary clay, and grows chiefly gram ; it is rarely irrigated. In places it is called bhabra, as lying between the uplands and the tari or lowlands, as the Bhabar lies between the Himalaya and the Taráí. For assessment purposes seven soils have been retained—namely, two of home lands, two irrigated outlying, and three dry outlying ; but in assessing this land allowances will have to be made for temporary injury to the fields by flooding.

The method adopted for obtaining rates was that already described in the general Rates. report with the following result :—

Description of soil.	Mát.				Noh Jhíl.				Total.			
	Instances.	Area.	Rent.	Rate.	Instances.	Area.	Rent.	Rate.	Instances.	Area.	Rent.	Rate.
		Acres.	Rs. a. p.				Rs. a. p.			Acres.	Rs. a. p.	Rs.
Bara I. ...	31	28-96	967 15 3	...	22	19-98	292 0 0	...	53	48-99	559 15 3	12-75
Do. II. ...	55	32-68	323 12 6	...	24	24-54	248 0 0	...	79	57-22	570 12 6	9-97
Do. III. ...	38	20-50	164 8 3	...	14	12-46	107 10 3	...	52	32-96	272 2 6	8-26
Do. IV. ...	76	74-17	557 8 0	...	12	13-78	93 8 6	...	88	87-92	651 0 6	7-44
Do. V. ...	...	...	...	...	...	...	...	...	...	...	...	...
Irrigated loam and bhúr A.	1,020	2,514-23	15,739 2 5	6-26	148	253-30	2,030 7 0	6-06	...	...	...	...
Irrigated bhúr B.	325	707-36	3,998 13 6	5-64	156	431-84	2,375 14 10	5-50	...	...	...	...
Dry loam and bhúr A. & B.	406	853-48	4,588 1 3	5-37	147	315-37	1,504 1 4	4-77	...	...	...	...
Irrigated bhúr fair and ravines, good.	124	228-97	1,246 0 6	5-44	36	72-99	343 4 6	4-70	...	...	...	...
Dry ditto	173	315-74	1,388 2 0	4-39	75	194-65	744 15 1	3-75	...	...	...	...
Irrigated ravines, fair and páth fair.	23	46-07	169 3 6	...	9	18-64	73 10 0	...	32	64-71	263 13 6	4-0
Dry ditto	214	332-87	1,049 15 3	3-15	60	159-53	443 14 3	2-78	...	...	...	...
Dry páth and ravines bad.	96	209-59	447 4 3	2-13	27	103-05	171 10 0	1-66	...	...	...	...
Irrigated taráí best	55	71-06	378 12 6	...	43	47-68	262 10 3	...	98	118-74	641 6 9	5-43
Dry ditto	8	11-54	48 7 3	...	12	11-01	59 4 6	...	20	22-55	107 11 9	4-78
Total	...	2,644	5,443-21	30,386 10 5	5-58	785	1,782-74	6,750 14 6	4-91	...	...	...

The two most noticeable points in this statement are the very high rate paid for dry land as compared with that paid for wet, and the lower rate current for all soils in Noh Jhíl as compared with Mát. I considered it would be unsafe to take a dry rate so little differing from the wet rate as was here pointed to; and bearing this in mind, and also that rents in single soils, where the fields are, as a rule, in a ring-fence, are higher than rents paid for miscellaneous holdings, the following rates were adopted :—

Bara.				Mát.		Noh Jhíl.		
				Rs.		Rs.		
I.	...	...	...	...	12	...	12	...
II.	...	...	...	...	10	...	10	...
III.	...	...	...	...	8½	...	8½	...
IV.	...	...	...	...	7½	...	7½	...
V.	...	...	...	...	6	...	6	...
<i>Bara irrigated.</i>								
1. Loam and bhúr A.	...	...	...	...	6 to 6½	...	5½ to 6	...
2. Bhúr B.	...	...	...	...	5½	...	5½	...
3. Do. fair, &c.	...	...	...	...	5	...	4½	...
4. Páth fair, &c.	...	...	...	...	3½	...	3½	...
5. Do. bad	...	...	...	...	3	...	3	...
6. Taráí good	...	...	...	...	5½	...	5½	...
7. Do. fair	...	...	...	...	3½	...	3½	...
8. Rankar	...	...	...	...	4½	...	4½	...
<i>Bara dry.</i>								
1. Loam } Bhúr A. } Do. B. }	...	...	...	...	4½	...	4½	...
2. Bhúr fair	...	...	...	...	3½	...	3½	...
3. Páth do.	...	...	...	...	2½	...	2½	...
4. Do. bad	...	...	...	...	1½	...	1½	...
5. Taráí good	...	...	...	...	4	...	4	...
6. Do., fair	...	...	...	...	2	...	2	...
7. Rankar	...	...	...	...	3	...	3	...

It remains to test these rates. The following table shows the tenant area from which the soil rates were abstracted, broken up into its constituent soils;

these soils multiplied by the above rates, and the result compared with the rent actually paid :—

Soil.	Mát.			Noh Jhál.		
	Area in acres.	Rate.	Value.	Area in acres.	Rate.	Value.
		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
Bara I. ... ..	167	12 0 0	1,944 0 0	53	12 0 0	636 0 0
Do. II. ... ..	56	10 0 0	5,061 0 0	99	10 0 0	990 0 0
Do. III. ... ..	535	8 8 0	4,547 8 0	446	8 8 0	3,791 0 0
Do. IV. ... ..	1,216	7 8 0	9,135 0 0	493	7 8 0	3,897 8 0
Do. V. ... ..	10	6 0 0	60 0 0	9	6 0 0	54 0 0
Irrigated loam and bhúr A. ...	11,634	6 2 0	71,258 4 0	2,320	5 14 0	13,630 0 0
Ditto bhúr B. ... ..	3,477	5 8 0	19,123 8 0	3,005	5 4 0	16,776 4 0
Dry loam and bhúr A. and B. ...	3,172	4 8 0	14,278 8 0	1,536	4 4 0	6,598 0 0
Irrigated bhúr, fair, &c. ...	1,023	5 0 0	5,115 0 0	452	4 12 0	2,147 0 0
Dry bhúr fair ... ..	973	3 8 0	3,412 8 0	459	3 4 0	2,991 12 0
Irrigated pú h, fair, &c. ...	166	3 12 0	622 8 0	111	3 8 0	328 8 0
Dry ditto ... ..	716	2 8 0	1,790 0 0	521	2 4 0	1,172 4 0
Irrigated púth, bad, &c. ...	3	3 0 0	9 0 0	3	3 0 0	9 0 0
Dry ditto ... ..	265	1 2 0	397 8 0	206	1 4 0	257 8 0
Irrigated tarai, good ... ..	591	5 8 0	3,272 8 0	289	5 8 0	1,599 8 0
Dry ditto ... ..	74	4 0 0	226 0 0	63	4 0 0	252 0 0
Irrigated tarai, fair ... ..	46	3 8 0	161 0 0	7	3 8 0	24 8 0
Dry ditto ... ..	7	2 0 0	14 0 0	7	2 0 0	14 0 0
Irrigated rankar ... ..	108	4 8 0	486 0 0	129	4 8 0	625 8 0
Dry ditto ... ..	52	3 0 0	156 0 0	117	3 0 0	351 0 0
<b>Total</b> ... ..	<b>24,745</b>	<b>...</b>	<b>1,41,138 12 0</b>	<b>10,735</b>	<b>...</b>	<b>54,725 4 0</b>
<b>Actual rental</b> ... ..	<b>...</b>	<b>...</b>	<b>1,39,407 0 0</b>	<b>...</b>	<b>...</b>	<b>53,843 12 0</b>

Therefore the soil rates in Mát gave a rental 1.24 per cent. over that recorded as paid by men cultivating 66 per cent. of the bángar tenant area, and in Noh Jhál of 1.7 per cent. over that recorded against 41 per cent. of the same.

Abstracting the holdings of cultivators in a single soil in the khádar of the Jumna, the result was :—

	Mát.				Noh Jhál.			
	No. of instances.	Area held in acres.	Rent paid.	Rate.	No. of instances.	Area held in acres.	Rent paid.	Rate.
			Rs. a. p.				Rs. a. p.	
and II. ... ..	33	38.08	331 11 0	8 71	...	...	...	...
III. ... ..	115	159.78	828 14 0	5.19	9	15.15	63 6 0	4.18
IV and V. ... ..	431	749.69	3,521 7 0	4.7	162	535.96	1,627 0 0	3.16
VI. ... ..	162	209.72	754 15 0	3.6	61	138.44	328 11 0	2.38

Some of the soils were here lumped together for the sake of a larger field for comparison. The Noh Jhál rates are low ; in fact lower than the comparative value of these soils with those of the uplands warranted. The following rates were finally fixed on :—

	Mát.	Noh Jhál.
I.	Rs. 10	Rs. 9
II.	7½	7½
III. { Irrigated ... ..	5	4½
{ Dry ... ..	4½	4½
IV. Irrigated ... ..	4½	4½
V. Dry ... ..	4	3½
VI. ... ..	3½	3½
VII. (melons) ... ..	3½	3½

To test the rates chosen for Mát, the tenant area from which they were taken is here given broken up into its soils and the above rates applied :—

Upland soil—Mát.					Acres.	Rs.	Rs.	a.	p.
III.	...	...	...	...	143	× 8½	=	1,215	8 0
IV.	...	...	...	...	200	× 7½	=	1,500	0 0
V.	...	...	...	...	3	× 6	=	18	0 0
Irrigated loam,	...	...	...	...	179	× 6½	=	1,096	6 0
Ditto bhúr best	...	...	...	...	642	× 5½	=	3,531	0 0
Dry loam and bhúr	...	...	...	...	26	× 4½	=	117	0 0
Irrigated bhúr fair and ravines, good	...	...	...	...	139	× 5	=	695	0 0
Dry ditto ditto	...	...	...	...	116	× 3½	=	406	0 0
Irrigated púth fair, &c.	...	...	...	...	65	× 3½	=	243	12 0
Dry ditto, &c.	...	...	...	...	147	× 2½	=	367	8 0
Irrigated púth, bad, &c.	...	...	...	...	1	× 3	=	3	0 0
Dry ditto, &c.	...	...	...	...	106	× 1½	=	132	8 0
Irrigated tarái, best	...	...	...	...	14	× 5½	=	77	0 0
Ditto rankar	...	...	...	...	11	× 4½	=	49	8 0
Dry ditto	...	...	...	...	1	× 3	=	3	0 0
					1,793				
					Rs. 19,033.				
Real khádar.					30	× 10	=	300	0 0
I.	...	...	...	...	64	× 7½	=	480	0 0
II.	...	...	...	...	158	× 5	=	790	0 0
III. { Irrigated	...	...	...	...	100	× 4½	=	450	0 0
{ Dry	...	...	...	...	364	× 4½	=	1,618	0 0
IV. & V. { Irrigated	...	...	...	...	1,971	× 4	=	5,084	0 0
{ Dry	...	...	...	...	880	× 2½	=	1,595	0 0
VI.	...	...	...	...	13	× 2½	=	27	0 0
VII.	...	...	...	...	3,573				
					19,818 2 0				
Actual rental					Rs. 19,033.				

The result showed a difference of 4 per cent. only from the amount actually collected on 87 per cent. of the tenant area.

The area of jhíl khádar is too small for the method previously followed for ascertaining rates, but judging the quality of the soil by the rates paid in the bángar, the following rates were decided on :—

I. Bara... 8½	1. Bar dry ... 4	A. Bar irrigated 5	3. Bar irrigated 2
II. Do. ... 7½	2. Do. do. ... 3½	B. Ditto 3	

These rates were sanctioned by the letter of the Board of Revenue, No. <sup>III</sup><sub>1-3</sub>, dated 3th March, 1878.

Rental at assumed rates. Multiplying the soil areas by the rates we have the following results :—

Mát bángar khádar.					Acres.	Rs.	Rs.	a.	p.
Bara I.	...	...	...	...	237	× 12	=	2,844	0 0
Do. II.	...	...	...	...	1,033	× 10	=	10,330	0 0
Do. III.	...	...	...	...	1,254	× 8½	=	10,659	0 0
Do. IV.	...	...	...	...	2,549	× 7½	=	19,117	8 0
Do. V.	...	...	...	...	27	× 6	=	162	0 0
Irrigated loam and bhúr A.	...	...	...	...	18,246	× 6½	=	1,11,756	12 0
Ditto ditto B.	...	...	...	...	9,345	× 5½	=	51,897	8 0
Dry loam and bhúr A. and B.	...	...	...	...	6,736	× 4½	=	30,321	0 0
Irrigated bhúr fair	...	...	...	...	1,700	× 5	=	8,500	0 0
Dry bhúr fair	...	...	...	...	2,012	× 3½	=	7,042	0 0
Irrigated púth	...	...	...	...	302	× 3½	=	1,132	8 0
Dry púth	...	...	...	...	1,717	× 2½	=	4,292	8 0
Irrigated púth, bad	...	...	...	...	17	× 3	=	51	0 0
Dry púth, bad	...	...	...	...	883	× 1½	=	1,324	8 0
Irrigated tarái, good	...	...	...	...	1,099	× 5½	=	6,044	8 0
Dry do. do.	...	...	...	...	104	× 4	=	416	0 0
Irrigated tarái, fair	...	...	...	...	91	× 3½	=	318	8 0
Dry do. do.	...	...	...	...	25	× 2	=	50	0 0
Irrigated rankar	...	...	...	...	203	× 4½	=	913	8 0
Dry rankar	...	...	...	...	111	× 3	=	333	0 0
Total					47,493			2,67,005	12 0



*Mát khadar khāla.*  
*Upland soil.*

				Acres.	Rs.	Rs. a. p.
Bara III.	...	...	...	230 X	8½ =	1,955 0 0
Do. IV.	...	...	...	252 X	7½ =	1,890 0 0
Do. V.	...	...	...	8 X	6 =	48 0 0
Irrigated loam	...	...	...	277 X	6½ =	1,896 10 0
Do. bhūr, good	...	...	...	898 X	5½ =	4,939 0 0
Dry loam and bhūr, good	...	...	...	37 X	4½ =	166 8 0
Irrigated bhūr, fair	...	...	...	160 X	5 =	800 0 0
Dry bhūr, fair	...	...	...	193 X	3½ =	675 8 0
Irrigated pūth	...	...	...	69 X	3½ =	258 12 0
Dry pūth	...	...	...	220 X	2½ =	550 0 0
Do. bad	...	...	...	180 X	1½ =	225 0 0
Irrigated tarāl, good	...	...	...	23 X	5½ =	126 0 0
Ditto rankar	...	...	...	11 X	4½ =	49 8 0
Dry rankar	...	...	...	1 X	3 =	3 0 0

*River khadar.*

I	...	...	...	84 X	10 =	340 0 0
II	...	...	...	92 X	7½ =	690 0 0
III. { Irrigated	...	...	...	203 X	5 =	1,015 0 0
Dry	...	...	...	212 X	4½ =	954 0 0
IV. and V. { Irrigated	...	...	...	441 X	4½ =	1,984 8 0
Dry	...	...	...	1,633 X	4 =	6,532 0 0
VI.	...	...	...	854 X	2½ =	2,348 8 0
VII.	...	...	...	19 X	2½ =	42 12 0

Total ... 6,017 ... 27,289 10 0

Area since swept away by the river ... 60

6,077

*Mát bāngar mudfi.*

Bāra III.	...	...	...	9 X	8½ =	76 8 0
Do. IV.	...	...	...	11 X	7½ =	82 8 0
Irrigated bhūr B	...	...	...	1 X	5½ =	5 8 0
Do. do. fair	...	...	...	3 X	4½ =	13 8 0
Dry bhūr fair	...	...	...	16 X	3½ =	56 0 0
Dry pūth	...	...	...	10 X	2½ =	25 0 0
Ditto bad	...	...	...	174 X	1½ =	261 0 0
				234		520 0 0

*Mát khadar mudfi.*

II	...	...	...	13 X	7½ =	97 8 0
III. { Irrigated	...	...	...	23 X	5 =	115 0 0
Dry	...	...	...	21 X	4½ =	94 8 0
IV. and V. { Irrigated	...	...	...	12 X	4½ =	54 0 0
Dry	...	...	...	223 X	4 =	892 0 0
VI.	...	...	...	85 X	2½ =	233 12 0
VII.	...	...	...	7 X	2½ =	15 12 0
				384		1,502 8 0

Area swept away by the river ... 14

398

*Noh Jhīl bāngar khāla.*

Bāra I.	...	...	...	360 X	12 =	4,320 0 0
Do. II.	...	...	...	618 X	10 =	6,180 0 0
Do. III.	...	...	...	2,100 X	8½ =	17,850 0 0
Do. IV.	...	...	...	2,681 X	7½ =	20,107 8 0
Do. V.	...	...	...	165 X	6 =	990 0 0
Irrigated loam and bhūr A.	...	...	...	8,947 X	5½ =	52,563 10 0
Ditto bhūr B	...	...	...	10,901 X	5½ =	77,320 4 0
Dry loam and bhūr A. and B.	...	...	...	8,503 X	4½ =	38,137 12 0

			Acres.	Ra.	Ra. a. p.
Irrigated bhúr, fair, &c. ...	...	...	1,782 X	4½ =	8,464 8 0
Dry do. do. ...	...	...	4,642 X	3½ =	15,086 8 0
Irrigated púth, fair, &c. ...	...	...	521 X	3½ =	1,823 8 0
Dry do. do. ...	...	...	3,334 X	2½ =	7,601 8
Irrigated púth, bad, &c. ...	...	...	43 X	3 =	129 0 0
Dry púth bad &c. ...	...	...	1,609 X	1½ =	2,361 4 0
Irrigated, tarái good ...	...	...	1,272 X	5½ =	6,996 0 0
Dry tarái good ...	...	...	362 X	4 =	1,448 0 0
Irrigated tarái fair ...	...	...	27 X	3½ =	129 8 0
Dry do. fair ...	...	...	52 X	2 =	104 0 0
Irrigated rankar ...	...	...	296 X	4½ =	1,332 0 0
Dry rankar ...	...	...	295 X	3 =	885 0 0
Total			48,720		2,41,539 14 0

*Noh Jhál khádar kháda.**Upland soil.*

Bára III. ...	...	...	40 X	2½ =	340 0 0
Do. IV. ...	...	...	105 X	7½ =	787 8 0
Do. V. ...	...	...	5 X	6 =	30 0 0
Irrigated loam ...	...	...	143 X	6½ =	1,075 2 0
Do. bhúr, good ...	...	...	131 X	5½ =	687 12 0
Dry loam and bhúr good ...	...	...	120 X	4½ =	552 8 0
Irrigated bhúr fair, &c. ...	...	...	21 X	4½ =	99 12 0
Dry do. ...	...	...	62 X	3½ =	201 8 0
Irrigated púth ...	...	...	24 X	3½ =	84 0 0
Dry do. ...	...	...	133 X	2½ =	299 4 0
Dry púth, bad ...	...	...	31 X	1½ =	38 12 0
Irrigated tarái, good ...	...	...	13 X	5½ =	71 8 0
Dry do. ...	...	...	14 X	4 =	56 0 0
Irrigated rankar ...	...	...	4 X	4½ =	18 0 0
Dry do. ...	...	...	27 X	3 =	81 0 0
Total			923		4,422 10 0

*River khádar.*

I. ...	...	...	12 X	9 =	108 0 0
II. ...	...	...	19 X	7½ =	142 8 0
III. { Irrigated ...	...	...	128 X	4½ =	606 0 0
{ Dry ...	...	...	26 X	4½ =	110 8 0
IV. and V. } Irrigated ...	...	...	478 X	4½ =	2,031 8 0
} Dry ...	...	...	2,744 X	3½ =	10,290 0 0
VI. ...	...	...	1,000 X	2½ =	2,250 0 0
VII. ...	...	...	25 X	2½ =	56 4 0
Total			4,432		15,596 12 0

*Jhál khádar.*

I. ...	...	...	111 X	8½ =	943 8 0
II. ...	...	...	245 X	7½ =	1,837 8 0
A. ...	...	...	1,036 X	5 =	5,430 0 0
B. ...	...	...	45 X	3 =	135 0 0
1 ...	...	...	227 X	4 =	908 0 0
2 ...	...	...	1,678 X	3½ =	6,292 8 0
3 ...	...	...	546 X	2 =	1,092 0 0
Total			3,931		16,638 8 0

Area swept away by the river

... 14

GRAND TOTAL

... 9,337

The amount declared was—

**Assessment.**

	Rs.
Mát bángar ...	1,31,070
Do. khádar ...	13,690
Noh Jhíl bángar ...	1,18,760, of which Rs. 1,12,980 are payable while Raghunath Das lives.
Do. khádar ...	18,300, of which Rs. 15,530 are payable while Raghunath Das lives.

The total rise of the final demand on the total of the old demand is thus Rs. 35,964, or 14·6 per cent.

The average recorded rental for 20 years before this settlement was Rs. 3,43,424, and the average interpreted rental Rs. 3,94,376; the recorded rental of the last year before the new settlement was Rs. 4,13,614, and the interpreted rental Rs. 4,91,849. The recorded rental of the attested khataunnis was Rs. 3,35,133, and the interpreted rental Rs. 4,80,860. The following statement shows the rental after the completion of the enhancement work of the settlement courts :—

Description.	Mát.			Noh Jhíl.		
	Area.	Rent.	Rate.	Area.	Rent.	Rate.
	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.
Sir ...	11,271	28,431	2 8 2	22,807	56,800	2 7 10
Ex-proprietary tenants... ..	132	644	7 2 5	142	750	5 4 6
Resident occupancy tenants ...	10,044	56,213	5 9 5	9,939	43,095	4 5 5
Non-resident occupancy tenants ...	1,953	8,969	4 9 5	2,604	10,464	4 0 4
Resident tenants-at-will ...	19,474	1,12,358	5 12 9	12,963	57,135	4 6 7
Non-resident tenants-at-will ...	4,106	21,734	5 4 8	5,148	24,076	4 10 9
Rent-free ...	449	...	...	456	...	...
Cultivated gardens, &c. ...	17	43	2 8 6	30	...	...
Total ...	47,446	2,28,692	...	54,089	1,92,320	...

These figures refer to the year of scarcity 1877-78, and hence the decrease of 10,342 acres on the cultivated area. No interpreted rental can therefore safely be drawn from these figures.

R. S. WHITEWAY.

Number.	Village.	Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Revenue of last settlement.	Average of last 5 years.	Present revenue.	Total area in acres.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		Rs.	Rs.	Rs.	Rs.	Rs. a p.		PARGANA Rs.
1	Aras bāngar ...							
2	Do. khādar ...							
3	Asmabad or Chandpura ...	6,801	6,301	9,100	8,725	8,692 0 0	10,000	4,119
4	Auhawa bāngar ...						200	637
5	Ditto khādar ...	801	801	701	725	725 0 0	800	826
6	Badanpur or Hirola ...	1,800	2,300	3,000	3,101	3,093 0 0	3,100	1,377
7	Baikunthpur or Surkhra ...						1,400	1,071
8	Bakla ...	1,801	1,801	1,801	1,901	1,901 0 0	2,450	1,072
9	Begampur bāngar ...	550	550	850	850	534 0 0	950	385
10	Ditto khādar ...	601	601	800	670	600 0 0	640	366
11	Bhadanwara ...	451	451	600	501	323 0 0	110	108
12	Bhadauni bāngar ...						320	273
13	Ditto khādar ...	4,165	11,000	5,710	6,339	6,378 0 0	7,400	2,770
14	Bhadaura or Bhadrban bāngar ...	1,601	1,601	2,100	2,500	3,001 0 0	1,050	444
15	Ditto khādar ...						1,800	1,301
16	Bhalai ...	1,101	1,101	1,101	1,461	1,628 0 0	1,750	1,076
17	Bhim bāngar ...	1,701	1,701	3,400	4,001	3,961 8 0	4,600	1,725
18	Ditto khādar ...	375	375	850	905	922 0 0	1,000	648
19	Bijauli bāngar ...						150	454
20	Ditto khādar ...	750	750	750	1,324	1,323 0 0	1,320	1,026
21	Bindpur ...						500	982
22	Dadlra, 12½ biswas ...	651	651	850	1,001	1,001 0 0	1,250	589
23	Ditto, 7½ " ...	2,801	2,801	3,300	3,300	3,200 0 0	2,500	923
24	Dangauli bāngar ...						1,480	521
25	Ditto khādar ...	401	401	1,101	1,101	1,159 0 0	400	308
26	Dunetya khas ...						700	746
27	Bahdin taluka Dunetya ...	723	726	687	687	695 0 0	900	334
28	Kheriya ditto ...	274	304	252	252	252 0 0	300	119
29	Milak kalan ditto ...	201	211	176	176	176 0 0	240	97
30	Ditto khurd ditto ...	360	373	311	311	311 0 0	370	173
31	Murja ditto ...	146	159	115	115	115 0 0	140	67
32	Nagla Dani ditto ...	357	352	310	310	317 0 0	400	151
33	Ditto Deha ditto ...	372	364	300	300	300 0 0	380	163
34	Ditto Himnan ditto ...	454	445	378	378	378 0 0	490	193
35	Ditto Humayun ditto ...	332	288	250	255	250 0 0	340	247
36	Ditto Mahru ditto ...	553	537	491	491	491 0 0	600	184
37	Patipura ditto ...	86	84	77	77	77 0 0	100	39
38	Polna kalan, M. Baldeo ditto ...	297	267	197	197	197 0 0	370	144
39	Ditto ditto M. Ballab ditto ...						220	96
40	Ditto khurd ditto ...	440	396	259	395	301 0 0	210	102
41	Sir Badam Singh ditto ...	248	295	231	231	231 0 0	260	102
42	Surka ditto ...		Musf.		277	277 0 0	340	127
43	Udhar ditto ...	777	731	709	709	709 0 0	950	392
44	Harnaul ...	891	854	675	675	689 9 0	900	506
45	Hirdpur or Pabipur ...	3,501	3,801	6,000	5,902	5,401 0 0	5,600	2,258
46	Hauli Guzar bāngar ...	801	801	1,150	1,101	1,101 0 0	1,130	404
47	Ditto khādar ...						1,300	512
48	Hauli Zunnardar ...		Musf.			2,853 0 0	1,800	1,075
49	Jaisua ...	2,301	2,801	3,400	2,700	2,790 0 0	2,750	1,156
50	Jaora ...	1,451	1,451	2,500	2,325	2,325 0 0	2,450	911
51	Jarara Mahāl Munkaran ...	6,501	6,601	8,900	9,622	9,653 0 0	11,500	4,296
52	Ditto Khwahindagan ...						1,400	578
53	Karahari ...		Musf.			4,489 0 0	2,600	1,510
54	Khaira ...	2,801	4,601	5,200	5,501	5,501 0 0	7,000	2,724
55	Khilyanwal khas ...	2,001	2,001	2,301	2,850	2,844 0 0	3,100	1,217
56	Ditto mahāl Radhe Lal ...	1,801	1,801	3,600	4,401	4,386 0 0	5,500	2,097
57	Kurwara ...						180	63
58	Lalgarhi ...	1,401	1,401	2,601	2,375	2,375 0 0	2,900	1,010
59	Lohai ...	501	501	600	450	450 0 0	550	246
60	Martana ...	2,301	2,367	3,900	4,750	4,750 0 0	5,400	1,804
61	Mahmudgarhi or Aman-lulpur, ...	371	371	500	670	670 0 0	1,100	522
		1,701	1,701	1,701	1,980	1,980 0 0	2,400	955
62	Māt Mahāl Mula bāngar ...						2,050	1,595
63	Ditto khādar ...	6,501	4,001	6,001	9,001	5,391 9 7	2,500	1,822
64	Ditto Raja bāngar ...						2,250	1,321
65	Ditto ditto khādar ...					3,591 6 5	1,500	1,034
66	Nasithi ...	1,601	1,601	3,000	3,518	3,518 0 0	4,100	1,551
67	Nagla Birbala ...		With Harnaul.			501 0 0	800	297
68	Piprauli bāngar ...			500	575	620 0 0	600	506
69	Piprauli khādar ...	217	241				20	242
70	Samauli khādar ...						1,150	618
71	Ditto Nabaramad ...	801	801	1,201	1,125	1,125 0 0	50	246
72	Surela ...	701	701	1,075	1,075	1,075 0 0	1,100	426
73	Surir bāngar ...						9,700	3,859
74	Ditto khādar ...	5,701	5,701	8,300	9,639	9,619 0 0	1,200	907
75	Tantikagaon or Akbarpur ...	1,000	1,000	1,601	2,601	2,581 0 0	2,400	1,249
	Total khālisa ...	78,807	84,241	1,04,599	1,16,187	1,23,928 8 0	1,44,760	66,089

STATISTICS OF AREA

STATISTICS OF AREA												Incidence of present revenue on total area per acre.			Incidence of present revenue on total assessable area (cultivated and culturable) per acre.			Incidence of present revenue on total cultivated area per acre.		
NOT ASSESSABLE.					ASSESSABLE.															
Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable land uncultivated.		Cultivated.			Total assessable.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
10.	11.	12.	13.	14.	15.	16.	Lately thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.
MAR.																				
25	52	19	270	376	15	171	14	2,728	815	3,543	3,743	2	6	10	2	10	9	2	13	1
17	1	2	29	42	2	144	355	6	81	87	598	0	5	0	0	5	5	2	4	9
6	3	2	2	13	1	5	...	214	93	307	313	2	7	3	2	8	10	2	9	8
14	...	2	24	40	...	33	...	853	451	1,304	1,337	2	4	1	2	5	1	2	6	0
1	18	257	18	294	...	98	7	385	287	672	777	1	4	10	1	12	9	2	1	4
2	7	8	24	41	7	73	7	551	393	944	1,031	2	4	6	2	7	0	2	9	6
...	3	2	15	20	1	5	...	359	...	359	365	2	7	5	2	9	7	2	10	4
7	6	1	2	16	1	20	...	188	41	229	250	2	6	5	2	8	11	2	12	8
...	3	...	1	4	...	24	...	9	71	80	104	1	0	3	1	0	11	1	6	0
13	...	...	42	55	...	72	27	11	98	109	218	0	12	10	1	0	8	2	0	3
32	29	22	62	145	9	157	1	1,833	625	2,458	2,625	2	10	8	2	13	1	2	0	2
5	10	1	7	23	...	27	...	220	174	394	421	2	5	10	2	7	10	2	10	7
6	1	1	520	528	9	44	...	553	66	619	673	1	7	11	2	10	10	2	14	6
27	7	5	120	159	11	61	1	417	429	846	919	1	9	11	1	14	4	2	1	1
4	...	2	202	208	...	47	40	96	192	288	375	0	13	8	1	5	4	1	11	9
16	19	9	26	70	9	39	2	1,400	215	1,615	1,665	2	10	5	2	12	2	2	13	6
4	4	...	77	85	7	126	...	203	223	426	563	1	8	8	1	12	5	2	5	6
...	...	...	6	6	...	84	291	16	57	73	448	0	5	3	0	5	4	2	0	10
213	4	1	11	229	...	128	...	350	317	667	797	1	4	7	1	10	5	1	15	8
...	...	...	511	511	...	195	6	87	183	270	471	0	8	2	1	0	11	1	13	7
5	4	2	3	14	...	92	1	456	23	481	875	2	1	11	2	2	9	2	9	6
11	5	11	26	53	...	41	...	707	122	829	870	2	11	3	2	13	11	2	0	3
...	5	1	4	10	...	17	...	419	75	494	511	2	13	5	2	14	4	2	15	11
2	6	1	12	21	...	32	...	30	217	247	287	1	4	9	1	6	3	1	9	10
...	5	3	27	30	...	226	187	67	226	293	716	0	15	0	0	15	7	2	4	11
1	1	...	12	30	3	30	1	305	25	333	344	2	5	6	2	7	6	2	11	7
...	1	...	1	3	2	3	...	194	7	111	116	2	8	4	2	9	4	2	12	3
7	1	...	3	11	...	7	...	75	12	87	94	2	7	7	2	8	10	2	12	1
...	...	...	...	...	...	14	...	110	38	148	162	2	2	2	2	4	6	2	8	0
2	1	...	3	4	...	4	...	47	12	59	63	2	1	5	2	3	7	2	5	11
...	...	...	...	...	...	...	...	140	7	147	148	2	10	4	2	11	3	2	11	6
2	4	...	...	10	...	7	...	120	21	151	158	2	4	2	2	6	8	2	8	3
...	...	...	...	3	...	15	...	157	18	175	190	2	8	7	2	9	8	2	12	9
2	8	...	6	11	...	9	...	207	20	227	236	1	6	0	1	7	1	1	8	4
...	...	...	...	4	...	12	...	112	26	138	150	2	14	4	4	0	0	4	5	6
...	...	...	...	2	...	1	...	32	4	36	37	2	9	0	2	11	2	2	12	5
3	2	1	3	9	2	14	...	80	39	119	135	1	14	0	2	0	0	4	2	2
...	...	...	...	7	...	6	...	78	10	88	94	2	4	8	2	5	6	2	8	0
...	...	...	...	...	...	7	...	66	23	89	95	2	0	11	2	3	4	2	6	3
...	...	...	...	...	...	3	...	97	...	97	100	2	8	9	2	9	7	2	10	8
...	...	...	...	4	...	1	...	97	25	122	123	2	10	10	2	12	2	2	12	7
19	1	...	...	28	...	22	...	312	30	342	364	2	6	10	2	9	9	2	12	5
10	5	...	...	19	...	115	...	297	65	362	487	1	12	5	1	13	6	2	7	9
17	23	15	39	94	10	87	...	1,817	449	2,266	2,164	2	7	8	2	9	4	2	11	4
1	3	...	6	11	...	2	...	355	36	391	393	2	12	9	2	14	0	2	14	2
...	...	...	18	20	...	18	...	474	4	478	492	2	8	8	2	10	3	2	11	6
...	18	5	204	227	4	178	...	514	149	663	848	1	10	11	2	1	11	2	11	6
...	6	8	18	32	...	25	...	308	289	1,097	1,124	2	6	0	2	7	2	2	8	2
3	6	5	20	34	...	17	...	688	172	860	877	2	11	0	2	12	8	2	13	6
46	47	20	96	309	9	294	...	3,541	243	3,784	4,087	2	10	9	2	13	0	2	13	7
...	5	5	14	24	1	56	...	381	116	497	554	2	6	9	2	8	3	2	13	1
...	13	13	32	858	7	130	...	910	404	1,314	1,452	2	6	2	2	7	8	2	11	10
11	29	11	54	105	27	162	...	1,810	619	2,429	2,619	2	9	2	2	10	10	2	14	1
9	11	11	32	63	1	33	...	804	416	1,220	1,254	2	5	8	2	7	7	2	8	7
22	17	11	60	110	7	59	...	1,349	572	1,921	1,987	2	9	11	2	12	8	2	12	9
...	1	...	1	2	...	2	...	48	11	59	61	2	12	8	2	15	3	2	0	9
16	9	7	11	43	...	19	...	896	44	940	967	2	13	11	2	15	11	2	1	4
9	2	1	6	18	1	9	...	164	83	247	238	2	3	10	2	6	8	2	8	6
...	...	...	...	60	11	14	...	1,483	228	1,718	1,744	2	15	10	2	1	5	2	2	8
17	9	6	12	28	1	95	...	353	55	408	504	2	1	1	2	2	11	2	11	2
25	40	9	42	116	2	9	...	644	259	903	914	2	8	3	2	10	0	2	10	6
7	...	38	452	497	4	165	4	651	645	1,296	1,479	1	14	7	2	0	11	2	5	7
4	24	1	75	104	6	119	61	186	1,024	1,210	1,395	1	5	3	1	12	10	2	1	1
14	...	101	12	127	1	22	109	436	536	972	1,117	1	13	10	2	0	3	2	5	0
...	18	9	28	49	5	23	3	74	701	775	907	1	7	3	1	10	5	1	14	11
...	1	1	8	12	3	96	...	1,325	136	1,471	1,502	2	10	3	2	11	8	2	12	7
15	3	...	166	184	1	25	10	206	80	286	385	9	0	2	2	4	2	2	12	9
7	...	...	6	13	...	12	204	69	217	286	322	1	3	0	1	18	9	2	1	6
1	...	...	155	164	9	4	6	373	38	439	447	0	1	4	0	1	5	1	9	7
...	...	...	...	...	...	175	12	23	...	23	210	0	3	3	0	3	9	2	10	9
4	3	8	7	17	...	6	...	304	98	409	409	2	9	3	2	11	0	2	11	9
95	61	12	78	247	43	64	2	2,428	1,085	3,513	3,622	2	8	2	2	10	11	2	12	2
39	7	1	106	147	2	215	2	304	237	541	760	1	5	2	1	9	2	2	3	6
...	8	4	37	49	15	69	...	958	158	1,116	1,200	2	11	6	2	13	4	2	0	10
843	606	709	2,928	6,086	286	4,561	1,2													

Number.	Village.	Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Revenue of last settlement.	Average of last five years.	Present revenue.	Total area in acres.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		Rs.	Rs.	Rs.	Rs.	Rs. a p.	Rs.	PARGANA
76	Jahangirpur bāngar ...	...	...	...	...	...	...	298
77	Ditto khādar ...	...	...	...	...	...	...	1,396
	Total muāfi ...	...	...	...	...	...	...	1,694
	GRAND TOTAL Māt ...	78,307	84,241	1,04,929	...	1,23,928 8 0	1,44,760	67,783
PARGANA Nām								
1	Abhaipura bāngar ...	...	...	...	...	...	...	275
2	Ditto khādar ...	...	...	...	...	...	...	290
3	Awa Khara ...	...	...	...	...	...	...	320
4	Arazi kasht Parsauli ...	...	...	...	...	...	...	136
5	Ditto Dalu patti ...	...	...	...	...	...	...	137
6	Ditto Sultan patti ...	...	...	...	...	...	...	114
7	Badauth ...	...	...	...	...	...	...	764
8	Baghal bāngar ...	...	...	...	...	...	...	469
9	Ditto khādar ...	...	...	...	...	...	...	262
10	Bagharra bāngar ...	...	...	...	...	...	...	632
11	Ditto khādar ...	...	...	...	...	...	...	35
12	Balipur ...	...	...	...	...	...	...	136
13	Berauth khas bāngar ...	...	...	...	...	...	...	2,040
14	Ditto ditto khādar ...	...	...	...	...	...	...	1,970
15	Ditto mahāl Saidgarhi khas ...	...	...	...	...	...	...	210
16	Ditto ditto ditto mahāl Kesar, ...	...	...	...	...	...	...	59
17	Bisau bāngar ...	...	...	...	...	...	...	13
18	Ditto khādar ...	...	...	...	...	...	...	332
19	Bera ...	...	...	...	...	...	...	1,123
20	Bhartiyaka ...	...	...	...	...	...	...	496
21	Bhairai bāngar ...	...	...	...	...	...	...	816
22	Ditto khādar ...	...	...	...	...	...	...	1,358
23	Bhureka 16 biawas ...	...	...	...	...	...	...	664
24	Ditto 5 biawas ...	...	...	...	...	...	...	214
25	Birjugarhi ...	...	...	...	...	...	...	432
26	Bulakpur ...	...	...	...	...	...	...	296
27	Chandauli ...	...	...	...	...	...	...	198
28	Chandpur kalan, mahāl Darmiyani, ...	...	...	...	...	...	...	356
29	Ditto ditto Janubi ...	...	...	...	...	...	...	352
30	Ditto ditto Shimali ...	...	...	...	...	...	...	352
31	Ditto khurd ...	...	...	...	...	...	...	669
32	Chaukhra ...	...	...	...	...	...	...	516
33	Chinparai bāngar ...	...	...	...	...	...	...	144
34	Ditto khādar ...	...	...	...	...	...	...	441
35	Chintagarhi ...	...	...	...	...	...	...	206
36	Dalupatti ...	...	...	...	...	...	...	1,507
37	Daulatpur bāngar ...	...	...	...	...	...	...	332
38	Ditto khādar ...	...	...	...	...	...	...	846
39	Diona bāngar ...	...	...	...	...	...	...	187
40	Ditto khādar ...	...	...	...	...	...	...	353
41	Faridampur or Sahudra bāngar, ...	...	...	...	...	...	...	450
42	Ditto khādar ...	...	...	...	...	...	...	968
43	Firozpur bāngar ...	...	...	...	...	...	...	200
44	Ditto khādar ...	...	...	...	...	...	...	110
45	Garhi Kaulabar ...	...	...	...	...	...	...	400
46	Himadpur ...	...	...	...	...	...	...	646
47	Hasanpur khas ...	...	...	...	...	...	...	1,372
48	Ditto mahāl Ajit Sing ...	...	...	...	...	...	...	118
49	Ditto ditto Chhita Singh ...	...	...	...	...	...	...	118
50	Ditto ditto Ghair Khwa-hindagan. ...	...	...	...	...	...	...	112
51	Ditto ditto Makrandgarhi, ...	...	...	...	...	...	...	401
52	Ditto ditto Sewak Ram...	...	...	...	...	...	...	116
53	Ibrahimpur ...	...	...	...	...	...	...	228
54	Ikhu ...	...	...	...	...	...	...	989
55	Inayatpur ...	...	...	...	...	...	...	297
56	Inayatgarh bāngar ...	...	...	...	...	...	...	432
57	Ditto khādar ...	...	...	...	...	...	...	446
58	Jafarpur bāngar ...	...	...	...	...	...	...	290
59	Ditto khādar ...	...	...	...	...	...	...	685
60	Jatpura ...	...	...	...	...	...	...	664

of Tahsil Mdt—(continued).

STATISTICS OF AREA.														
NOT ASSESSABLE.					ASSESSABLE.									
Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable land uncultivated.		Cultivated.			Total assessable.	Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and culturable) per acre.	Incidence of present revenue on total cultivated area per acre.
10.	11.	12.	13.	14.	15.	Old waste.	Lately thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.	21.	22.	23.	24.
Mdt—(concluded).														
19	6	1	3	99	3	41	1	33	201	224	269	Rs. a. p.	Rs. a. p.	Rs. a. p.
49	3	145	16	212	...	571	215	41	357	398	1,184	...	...	...
68	8	146	19	241	3	612	216	64	558	622	...	...	...	...
2,537	606	709	3,928	7,780	286	4,561	1,386	88,795	14,975	53,770	60,003	...	...	...
JHIL.														
...	1	1	4	6	2	17	...	35	215	250	269	1 9 0	1 9 6	1 11 6
...	...	7	4	11	...	28	36	82	70	152	216	1 4 4	1 5 5	1 14 6
3	3	2	3	11	3	57	...	177	72	249	309	1 12 0	1 12 11	2 3 11
...	...	14	...	14	...	122	...	...	...	...	122	0 1 2	0 1 4	...
...	...	...	...	...	...	137	...	...	...	...	137	0 1 2	0 1 2	...
...	...	...	...	...	...	114	...	...	...	...	114	0 1 5	0 1 5	...
...	6	5	8	19	1	158	4	410	172	582	745	1 14 4	1 15 1	2 7 10
3	5	1	15	24	9	114	...	158	158	316	439	1 8 2	1 9 6	2 3 5
3	...	33	2	38	...	9	97	34	85	119	225	1 4 1	1 7 5	2 12 4
9	3	...	25	37	...	11	101	258	215	473	585	1 5 10	1 7 3	1 12 9
...	...	...	...	...	...	4	...	11	10	21	25	0 12 10	0 12 10	0 15 2
...	1	1	2	4	...	5	...	90	37	127	132	2 3 2	2 4 5	2 5 9
37	30	12	41	120	13	137	17	1,658	1,095	2,753	2,920	2 0 1	2 1 5	3 3 5
2	4	5	184	145	...	1,110	147	42	526	568	1,825	0 7 1	0 8 2	1 10 2
2	2	...	1	5	...	9	...	131	65	196	205	2 3 9	2 4 8	2 6 4
...	...	...	...	1	...	3	...	27	28	55	58	2 3 4	2 3 10	2 5 9
...	...	...	...	...	...	3	...	10	...	10	13	2 4 11	2 4 11	3 0 0
1	2	15	126	144	...	55	7	56	70	126	188	0 11 1	1 3 7	1 13 2
...	7	5	30	42	5	31	...	574	471	1,045	1,081	2 3 7	2 5 0	2 6 3
1	3	1	6	11	2	48	...	152	283	435	485	1 9 10	1 10 5	1 18 5
...	9	9	19	30	6	122	3	151	504	655	786	1 4 7	1 5 4	1 9 7
...	1	18	10	29	...	446	33	243	517	820	1,299	1 3 9	1 4 3	2 0 2
1	4	2	9	16	15	50	1	289	293	582	648	2 3 0	2 3 9	2 7 10
...	2	...	2	4	1	18	...	100	91	191	210	2 5 3	2 6 1	2 9 10
1	7	6	5	19	1	5	...	259	148	407	413	2 8 9	2 10 7	2 11 1
...	3	...	14	17	1	20	1	80	177	257	279	1 12 7	1 14 4	2 1 0
1	2	2	2	7	...	13	30	118	28	146	189	2 0 8	2 1 10	2 11 10
...	3	1	4	8	11	3	...	280	54	334	348	2 9 4	2 10 3	2 12 0
...	3	1	5	9	2	5	...	238	98	336	343	2 9 9	2 11 0	2 11 9
...	3	1	5	9	1	4	...	260	78	338	343	2 9 9	2 11 0	2 11 6
3	4	3	8	18	7	11	...	318	315	633	651	2 2 8	2 3 7	2 4 7
...	3	5	8	16	5	25	...	297	172	469	499	2 5 3	2 6 5	2 8 11
4	...	...	3	7	...	...	...	54	83	137	187	2 3 6	2 5 4	2 5 4
8	10	3	94	115	1	5	1	156	163	319	326	1 9 4	2 4 2	2 3 1
1	3	1	3	8	4	5	...	192	...	192	198	2 14 7	3 0 5	3 2 0
9	13	3	25	50	4	184	1	787	531	1,268	1,457	2 2 0	2 3 1	3 8 4
2	6	1	5	14	2	24	...	142	50	192	218	2 5 11	2 8 4	2 13 10
3	...	9	2	14	...	385	14	185	248	433	832	1 0 1	1 0 4	1 15 4
1	5	1	2	9	...	17	...	117	14	131	148	2 3 8	2 5 9	2 10 8
5	...	1	2	8	...	58	1	74	312	286	345	1 8 11	1 9 6	1 14 9
...	1	2	15	18	...	30	...	236	166	402	432	2 0 0	2 1 4	2 3 10
...	...	7	2	9	...	368	91	31	469	500	959	0 12 5	0 12 9	1 8 0
...	2	...	2	4	...	9	...	77	110	187	196	1 12 0	1 12 6	1 13 11
...	...	7	2	9	...	6	...	14	81	95	101	1 13 1	1 15 8	2 1 8
...	3	2	5	10	...	11	...	330	49	379	390	2 14 0	2 15 2	3 0 6
1	6	9	8	24	2	19	1	452	148	600	622	2 11 4	2 13 0	2 14 8
...	7	2	24	33	13	48	2	527	749	1,276	1,339	1 15 6	2 0 3	2 1 10
...	2	2	2	6	...	4	...	63	45	108	112	2 5 11	2 8 0	2 9 5
...	1	1	2	4	...	3	...	63	43	106	109	2 7 7	2 9 1	2 10 3
...	...	1	2	3	...	3	...	55	51	106	109	2 5 1	2 6 2	2 7 3
...	3	1	2	6	2	49	...	239	105	344	395	2 1 10	2 2 6	2 7 6
...	1	1	1	3	...	3	...	94	15	109	119	2 9 8	2 10 10	2 12 0
...	1	1	1	3	...	...	...	89	136	225	235	2 4 6	2 4 11	2 4 11
11	16	2	23	52	2	61	...	571	303	874	937	2 8 5	2 10 8	2 13 10
...	1	2	2	5	...	17	7	202	66	268	292	2 2 5	2 3 1	2 6 2
6	3	2	5	16	...	29	...	292	96	388	417	2 3 1	2 4 5	2 7 1
...	...	4	2	6	...	196	4	30	210	240	440	0 14 4	0 14 6	1 10 8
1	...	4	1	13	...	26	...	87	165	252	278	1 8 3	1 9 5	1 11 11
...	...	18	2	20	...	293	246	20	106	126	685	0 7 0	0 7 3	2 6 1
2	3	3	10	18	...	19	...	433	194	627	646	2 8 11	2 10 1	2 11 4

Number.	Village.	Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Revenue of last settlement.	Average of last five years.	Present revenue.	Total area in acres.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs.	PAROANA
61	Kankargarhi ...	867	702	702	660	660 0 0	720	282
62	Kanka ...	Included in	Sehu patti.	...	308	308 0 0	350	169
63	Kaulahar ...	1,877	3,001	3,001	3,000	3,000 0 0	3,000	968
64	Kaulana bangar ...	1,937	2,300	2,300	2,050	2,050 0 0	1,350	719
65	Ditto khadar ...	Including	jama of Awa khara	...	...	...	560	640
66	Khanpur ...	Included in	Sehu patti.	...	308	308 0 0	340	164
67	Khwaajapur ...	879	625	1,350	1,350	1,350 0 0	1,500	827
68	Kuraoli ...	Included in	Makh dumpur.	...	575	575 0 0	810	403
69	Lalpur ...	Included in	Makh dumpur & Parsauli.	...	900	900 0 0	1,000	422
70	Lamtauli ...	216	523	761	801	801 0 0	950	340
71	Lana Kasba khadar ...	With	Bhainrai.	...	1,050	685 0 0	100	725
72	Lana Kaulana ditto ..	Ditto	ditto	...	2,051	1,321 0 0	820	785
73	Lana Makhdumpur khadar	Ditto	ditto	...	950	700 0 0	800	895
74	Lana Musmina ...	Included in	Lana Kaulana.	Included in Lana Kaulana.	...	...	520	726
75	Madahra ...	40	300	300	201	201 0 0	300	160
76	Makhdumpur bangar ...	927	1,250	1,250	1,030	1,030 0 0	1,200	555
77	Ditto khadar ...	The jama of li are	of Lelpur and Kurao- included in this.	...	1,030	1,030 0 0	200	160
78	Managarhi ...	785	950	950	1,350	1,355 0 0	1,550	892
79	Managarhi or Hamzapur	311	850	850	801	801 0 0	850	353
80	Mansal khoh bangar	...	...	...	...	...	20	18
81	Ditto khadar ...	91	50	30	40	400 0 0	400	401
82	Managarhi bangar ...	...	...	...	...	...	867	504
83	Ditto khadar ...	1,323	1,500	1,500	1,550	1,550 0 0	840	490
84	Marehla Mukha bangar	...	...	...	...	...	400	187
85	Ditto ditto khadar	193	350	505	850	572 0 0	330	376
86	Marehla bangar ...	...	...	...	...	...	400	326
87	Ditto khadar ...	224	1,100	1,100	801	801 0 0	450	194
88	Mirpur bangar ...	...	...	...	...	...	1,050	613
89	Ditto khadar ...	315	762	1,241	1,350	1,349 0 0	450	241
90	Mithauli ...	453	550	550	1,501	1,501 0 0	1,750	963
91	Mubarikpur ...	10	125	120	501	501 0 0	830	364
92	Muinuddinpur ...	787	1,200	1,200	1,141	1,141 0 0	1,450	766
		The jama of pur inclnd	of Lelpur and Firzo- ed in this	...	Same remarks as columns 3, 4, and 5.	...	...	...
93	Musmina khas bangar	...	...	...	...	...	400	226
94	Ditto ditto khadar	...	...	...	...	...	1,200	1,468
95	Ditto Mahal Bhagat Bhakraliya bangar.	2,046	2,500	2,500	2,450	2,283 5 4	230	101
96	Ditto ditto khadar	...	...	...	...	...	830	313
97	Nabipur ...	Included in	Sehu patti.	...	477	477 0 0	650	263
98	Nanakpur bangar ...	1,734	1,851	1,851	1,500	1,500 0 0	1,508	635
99	Ditto khadar ...	...	...	...	...	...	140	87
100	Naoli ...	1,316	3,601	3,611	4,701	4,701 0 0	4,800	2,128
101	Nausherpur ...	437	900	900	1,500	1,500 0 0	1,650	623
		Jama of	included in	Parsauli.	...	...	...	...
102	Noh khas bangar ...	...	...	...	...	...	4,368	2,350
103	Ditto khadar ...	1,287	3,100	3,100	4,379	...	700	810
104	Ditto Imlak Sawad bangar ...	Including	jama of Toli.	...	...	...	120	53
105	Ditto ditto khadar	...	...	...	...	...	10	24
106	Ditto Mahal Toli bangar	...	...	...	...	...	400	203
107	Ditto ditto khadar	...	Included in	Noh.	640	640 0 0	170	159
108	Nurpur or Bhainrauli bangar	...	...	...	...	...	280	318
109	Ditto ditto khadar	448	700	700	501	501 0 0	300	200
110	Pachhera ...	895	2,100	2,100	2,900	2,900 0 0	3,300	1,428
111	Paikhera ...	805	1,400	1,400	1,557	1,557 0 0	1,550	586
112	Parsauli ...	1,959	3,400	3,400	2,900	2,900 0 0	2,900	1,069
		Including	jama of Nausherpur and	Lalpur.	...	...	...	...
113	Pithanra bangar ...	...	...	...	...	...	350	177
114	Ditto khadar ...	286	500	500	600	594 0 0	250	174
115	Raipur bangar ...	...	1,350	2,000	2,300	1,700 0 0	900	394
116	Ditto khadar ...	...	...	...	...	...	1,200	1,377
117	Ramgarhi bangar ...	...	...	...	...	...	510	406
118	Ditto khadar ...	511	450	450	650	650 0 0	770	124
119	Ram Nagla ...	245	750	750	1,050	1,050 0 0	1,450	640
120	Saaharpur ...	Includ	ed in 'dhanpur.	...	375	375 0 0	800	266
121	Saddikpur ...	132	600	662	650	650 0 0	670	256



of tahsil Mdt—(continued.)

STATISTICS OF AREA.															
NOT ASSESSABLE.					ASSESSABLE.										
Revenue free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable land uncultivated.		Cultivated.			Total assessable.	Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and culturable) per acre.	Incidence of present revenue on total cultivated area per acre.	
10.	11.	12.	13.	14.	15.	Old waste.	Lately thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.	21.	22.	23.	24.	
Non JHYL—(continued.)															
1	2	3	4	5	6	7	8	9	10	11	12	Rs. a. p.	Rs. a. p.	Rs. a. p.	
...	...	...	...	...	...	...	...	...	...	...	...	2 8 10	2 10 1	2 14 1	
...	...	...	...	...	...	...	...	...	...	...	...	2 1 2	2 1 4	2 3 5	
...	...	...	...	...	...	...	...	...	...	...	...	3 1 7	3 3 4	3 5 2	
...	...	...	...	...	...	...	...	...	...	...	...	1 14 1	1 15 8	2 1 7	
...	...	...	...	...	...	...	...	...	...	...	...	0 14 6	0 14 8	3 6 8	
...	...	...	...	...	...	...	...	...	...	...	...	2 1 2	2 1 9	2 3 3	
...	...	...	...	...	...	...	...	...	...	...	...	1 13 0	1 13 9	1 14 6	
...	...	...	...	...	...	...	...	...	...	...	...	2 1 5	2 3 5	2 9 11	
...	...	...	...	...	...	...	...	...	...	...	...	2 5 10	2 6 11	2 7 9	
...	...	...	...	...	...	...	...	...	...	...	...	2 12 2	2 14 5	2 15 2	
...	...	...	...	...	...	...	...	...	...	...	...	0 2 3	0 2 5	14 4 6	
...	...	...	...	...	...	...	...	...	...	...	...	1 0 8	1 0 11	2 1 5	
...	...	...	...	...	...	...	...	...	...	...	...	0 14 3	0 15 3	1 11 4	
...	...	...	...	...	...	...	...	...	...	...	...	0 11 5	0 14 8	1 13 7	
...	...	...	...	...	...	...	...	...	...	...	...	1 14 0	1 14 6	2 0 2	
...	...	...	...	...	...	...	...	...	...	...	...	2 2 7	2 4 1	2 8 9	
...	...	...	...	...	...	...	...	...	...	...	...	1 4 0	2 3 1	2 7 0	
...	...	...	...	...	...	...	...	...	...	...	...	1 11 9	1 12 8	2 2 11	
...	...	...	...	...	...	...	...	...	...	...	...	2 7 1	2 7 10	2 8 11	
...	...	...	...	...	...	...	...	...	...	...	...	1 1 9	1 4 0	1 8 7	
...	...	...	...	...	...	...	...	...	...	...	...	0 15 11	1 0 1	2 0 3	
...	...	...	...	...	...	...	...	...	...	...	...	1 11 3	1 12 3	2 7 7	
...	...	...	...	...	...	...	...	...	...	...	...	1 11 5	1 11 11	1 15 11	
...	...	...	...	...	...	...	...	...	...	...	...	2 2 2	2 4 0	2 10 11	
...	...	...	...	...	...	...	...	...	...	...	...	0 14 0	0 14 2	1 15 5	
...	...	...	...	...	...	...	...	...	...	...	...	1 3 7	1 6 1	1 10 1	
...	...	...	...	...	...	...	...	...	...	...	...	2 5 1	2 5 8	2 5 10	
...	...	...	...	...	...	...	...	...	...	...	...	1 11 5	1 12 2	2 3 9	
...	...	...	...	...	...	...	...	...	...	...	...	1 13 10	1 16 10	2 3 3	
...	...	...	...	...	...	...	...	...	...	...	...	1 13 1	1 13 10	1 14 7	
...	...	...	...	...	...	...	...	...	...	...	...	2 2 7	2 3 6	2 6 4	
...	...	...	...	...	...	...	...	...	...	...	...	1 14 3	1 15 9	2 1 8	
...	...	...	...	...	...	...	...	...	...	...	...	1 12 3	2 1 6	2 3 9	
...	...	...	...	...	...	...	...	...	...	...	...	0 13 1	1 0 1	1 13 2	
...	...	...	...	...	...	...	...	...	...	...	...	2 1 17	2 5 1	2 8 0	
...	...	...	...	...	...	...	...	...	...	...	...	1 9 5	1 9 8	1 12 7	
...	...	...	...	...	...	...	...	...	...	...	...	2 7 7	2 9 3	2 9 11	
...	...	...	...	...	...	...	...	...	...	...	...	2 5 9	2 7 5	2 10 11	
...	...	...	...	...	...	...	...	...	...	...	...	1 9 8	1 10 0	1 10 0	
...	...	...	...	...	...	...	...	...	...	...	...	2 4 2	2 5 2	2 6 7	
...	...	...	...	...	...	...	...	...	...	...	...	2 10 5	2 12 1	2 14 9	
...	...	...	...	...	...	...	...	...	...	...	...	1 13 3	2 1 3	2 2 8	
...	...	...	...	...	...	...	...	...	...	...	...	0 13 9	1 4 3	2 2 9	
...	...	...	...	...	...	...	...	...	...	...	...	2 4 1	2 4 11	2 6 5	
...	...	...	...	...	...	...	...	...	...	...	...	0 6 8	0 6 8	2 8 0	
...	...	...	...	...	...	...	...	...	...	...	...	1 15 6	2 0 5	2 1 4	
...	...	...	...	...	...	...	...	...	...	...	...	1 1 1	1 3 0	2 2 0	
...	...	...	...	...	...	...	...	...	...	...	...	0 14 1	1 0 10	1 1 6	
...	...	...	...	...	...	...	...	...	...	...	...	1 8 0	1 10 4	2 9 0	
...	...	...	...	...	...	...	...	...	...	...	...	2 4 11	2 5 9	2 6 6	
...	...	...	...	...	...	...	...	...	...	...	...	2 10 4	2 12 9	3 0 4	
...	...	...	...	...	...	...	...	...	...	...	...	2 11 9	2 13 6	2 15 4	
...	...	...	...	...	...	...	...	...	...	...	...	1 15 8	2 0 11	2 3 0	
...	...	...	...	...	...	...	...	...	...	...	...	1 6 11	1 7 3	2 1 8	
...	...	...	...	...	...	...	...	...	...	...	...	2 4 6	2 6 5	2 12 0	
...	...	...	...	...	...	...	...	...	...	...	...	0 13 1	0 14 4	1 9 10	
...	...	...	...	...	...	...	...	...	...	...	...	1 5 3	1 5 10	1 10 4	
...	...	...	...	...	...	...	...	...	...	...	...	1 5 11	1 6 1	2 7 5	
...	...	...	...	...	...	...	...	...	...	...	...	2 4 3	2 5 5	2 6 0	
...	...	...	...	...	...	...	...	...	...	...	...	2 4 1	2 5 2	2 7 10	
...	...	...	...	...	...	...	...	...	...	...	...	2 9 10	2 11 6	2 11 6	

Number.	Village.	Highest revenue of 1st settlement.	Highest revenue of 2nd settlement.	Highest revenue of 3rd settlement.	Revenue of last settlement.	Average of last five years.	Present revenue.	Total area in acres.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs.	PARSANA
122	Sihon khádar ...	Included in Bhadanwara.	81	135	75	57 0 0	60	44
123	Sakatpur... ..	522	950	950	1,201	1,201 0 0	1,250	578
124	Salakha ... ..	555	850	850	601	601 0 0	660	287
125	Shal ... ..	855	2,050	2,050	2,285	2,285 0 0	2,300	389
126	Shankargarhi ...	640	1,401	1,401	1,401	1,388 0 0	1,500	542
127	Sehu patti bángar ...	3,098	6,001	6,001	3,400	3,400 0 0	4,200	1,909
128	Ditto khádar ...	Including jama of Chandauli, Kane			Nabipur, Khanpur, ka and Chinparai.		10	112
129	Sigoni bángar ...	859	925	800	1,150	1,000 0 0	440	394
130	Ditto khádar ...						580	293
131	Sikandarpur ...	1,500	Included in Bhadanwara.	3,917	3,900	3,900 0 0	4,350	1,807
132	Sotipura mahál Bhawani bángar,						30	32
133	Ditto ditto khádar ...						10	24
134	Sotipura mahál Nandkishor bángar.	26	41	41	95	95 0 0	40	35
135	Ditto ditto khádar ...						10	20
136	Subagpur ... ..	278	750	750	1,001	1,001 0 0	1,060	439
137	Sultanpur bángar ...	200	826	977	550	520 0 0	700	258
138	Ditto khádar ...						220	351
139	Sultanpatti ... ..	2,161	4,700	5,684	5,240	5,230 0 0	5,500	1,928
140	Thaluan ... ..	431	750	750	675	675 0 0	670	215
141	Tehra ... ..	583	583	971	1,000	1,000 0 0	1,100	422
142	Tilkagarhi ... ..	1,303	1,300	1,301	1,325	1,325 0 0	1,700	912
143	Udhanpur bángar ...						600	369
144	Ditto khádar ...	903	903	903	425	425 0 0	20	43
	Total Noh Jhil ...	58,507	1,00,471	1,09,862	1,25,586	1,22,160 1 4	1,37,060	74,259
	Total Mát ...	78,307	84,241	1,04,599	1,16,187	1,22,928 8 0	1,44,760	67,783
	Total Tahsil ...	1,36,814	1,84,712	2,14,461	2,41,773	2,45,088 9 4	2,81,820	1,42,042

of Tahsil Mdt.—(concluded.)

STATISTICS OF AREA.														
NOT ASSESSABLE.					ASSESSABLE.							Incidence of present revenue on total area per acre.	Incidence of present revenue on total assessable area (cultivated and culturable) per acre.	Incidence of present revenue on total cultivated area per acre.
Revenue-free.	Site.	Occupied by water.	Barren waste.	Total.	Groves.	Culturable land uncultivated.		Cultivated.			Total assessable.			
10.	11.	12.	13.	14.	15.	Old waste.	Lately thrown out of cultivation.	Irrigated.	Not irrigated.	Total cultivated.	21.	22.	23.	24.
JMFL.	(concluded.)											Rs. a p.	Rs. a. p.	Rs. a. p.
...	...	1	21	22	...	1	...	21	...	21	22	1 5 10	2 11 7	2 13 8
		3		12	...	47	...	253	266	519	566	2 2 7	2 3 4	2 6 6
1	5	1	3	9	...	20	...	199	59	258	278	2 4 9	2 5 11	2 8 11
1	2	4	5		10	3	...	521	328	849	862	2 9 4	2 10 8	2 11 4
1	8	6	14	27			...	508	...	508	522	2 12 3	2 13 11	2 15 2
1	6	4	8	21	2	11	1	804	978	1,782	1,849	2 3 2	2 4 4	2 5 8
5	19	...	32	60	7	59	1	...	3	2	111	0 1 5	0 1 5	3 5 4
...	...		1	1	...	83	25	...						
		2		7	1	53	...	18	315	333	387	1 1 10	1 2 2	1 5 1
...		...	3	2	...	2	19	146	124	270	291	1 15 4	1 15 11	2 2 5
9	14	11	29	63	9	80	...	1,267	388	1,655	1,744	2 6 6	2 7 11	2 10 1
		...		...	...	11	...	3	18	21	32	0 15 0	0 15 0	1 6 10
...	...	...	...	...	...	...	19	...	5	5	24	0 6 8	0 6 8	2 0 0
...	...	...	...	...	...	9	1	21	4	25	35	1 2 3	1 2 3	1 9 7
		3	...	...	...	...	17	...	3	3	20	0 8 0	0 8 0	3 5 4
6	5	1	3	16	1	34	...	254	134	388	423	2 6 4	2 8 2	2 11 3
5	3	11	7	16	1	12	...	223	6	229	242	2 11 5	2 14 3	3 0 10
...	...	11	114	125	...	84	16	21	105	126	136	0 10 0	0 15 4	1 11 11
6	17	...	37	71	12	36	...	1,584	225	1,809	1,857	2 13 7	2 15 4	3 0 7
2	5	1	7	14	...	2	...	181	18	199	201	3 1 10	3 5 4	3 5 9
14	4	3	4	23	...	8	...	364	27	391	399	2 9 8	2 13 7	2 13 0
5	8	1	19	35	...	24	...	446	407	853	877	1 13 9	1 15 0	1 15 10
1	1	...	3	6	...	96	...	110	157	267	363	1 10 0	1 10 2	2 3 11
...	...	...	...	...	...	21	15	...	7	7	43	0 7 5	0 7 5	2 13 8
515	536	890	1,939	3,880	235	9,382	2,655	31,763	26,344	58,107	70,379	1 13 6	1 15 1	2 5 9
2,537	606	709	3,928	7,780	286	4,561	1,386	88,795	14,975	53,770	60,003	...	...	...
3,052	1,142	1,599	5,867	11,660	521	13,943	4,041	70,558	41,319	111,877	130,362	...	...	...

# MEMO. ON THE SETTLEMENT OF THE VILLAGES TRANSFERRED FROM THE AGRA TO THE MUTTRA DISTRICT.

General description—Irrigation—Population and castes of population—Agricultural statistics—Fiscal history—Comparison of past and present condition—Crops—Prices—Population—Cultivating tenures—Rent-rates—Assessment—Financial results of revision of settlement—General statement.

The following remarks refer to 84 villages, hitherto included in the Fārah tahsīl of the Agra district, which were transferred on 1st October, 1878 to Muttra and incorporated in the Huzūr Tahsīl of that district. They were situated in the north-western portion of the old Fārah tahsīl and in the extreme north-west corner of the Agra district. Skirted on the north-east boundary by the river Jumna there is a certain area of ravines and khādar land, but the ravines are less marked, and the khādar poorer in quality and more limited in extent than is the case lower down along that river's course. Above the ravines is the usual belt of sandy soil, but this too comprises but a small area and becomes rapidly merged in the ordinary loam of the level uplands. In one village only, *viz.*, Gadāya Latīfpur, is there any extensive area of ravines or alluvial formation. The soil is for the most part the ordinary dūmat with a good deal of sandy inferior soil interspersed: and much of what must be classed as loam is unproductive. The depression generally known as the Nahra, or western drainage, runs through the south-western portion of the area under discussion.

Water along the depression is near the surface and sweet; but elsewhere, though irrigation is easy and inexpensive, owing to the great extent to which brackish or salt water is prevalent, the advantages possessed by this tract are even less than would appear from the statistics of irrigation. Of the total cultivated area of 53,062 acres, only 25,245 acres, or about 47 per cent., are irrigated. Of this area 22,772 acres are irrigated from wells, 2,459 acres from the canal, and only 14 acres from other sources. Canal irrigation is however spreading rapidly, and will supersede wells wherever it can reach. The total number of wells is 3,934, of which 519 are masonry, 13 are gadāwali, and the remaining 3,402 are the ordinary earthen wells; these wells work 4,268 buckets, each bucket watering on an average 5 to 6 acres.

There are no important towns, and in only five villages—Fārah, Bari, Sīssa, Ol, and Jhandāwai—is there the ordinary weekly market. The population consists chiefly of Hindūs, amongst whom the most numerous are Chamārs; after them, in point of numbers, but of course of greater importance in other respects, are Brahmins, Thākurs, and Jāts, whose numbers are about the same. The other Hindu castes are not numerous; the proportion of Musalmāns is, however, larger than elsewhere in the Agra district. The proprietary castes are chiefly Thākurs, Brahmins, Jāts, Khātris, and Musalmāns, and the three first named hold most of the cultivation in their hands.

The average area of each holding is about 5½ acres, each holding supporting on an average three persons. There are 3,952 ploughs and 8,533 plough cattle; the average plough area is thus about 13 acres. Besides plough cattle there are 20,901 head of milch and other cattle and 5,442 sheep and goats. The number of masonry houses is 561, earthen houses number 10,030; and these with 938 thatched ones give a total of 11,529 houses, or something under 5 persons on an average to each house.

Most of these 84 villages were in the time of Akbar included in the mahāl deriving its name from the large village of Ol; the village of Fārah giving its name to the pargana at a very much later date.

The revenues fixed at the four settlements made since cession are as follows:—

				Rs.			
1st settlement	...	...	39,119	3rd settlement	...	...	86,316
2nd ditto	...	...	56,046	4th ditto	...	...	72,710

The chief changes since last settlement arose from the resumption of a large area of land then held free of revenue. This area included a number of villages which had been granted to one Badal Sháh, a fakir of Gwalior, and covered in this tract 15,112 acres. In no village was any remission on account of severity of revenue found necessary, and the demand has on the whole been realised without difficulty. The revenue demand of this tract as it stood at the end of 1876-77 was Rs. 84,932. The statement of transfer of proprietary rights shows a low price as paid for land in the earlier period of last settlement, which however completely righted itself in time, and, considering the general inferiority of the land, reached a fully adequate standard.

To compare the former and present statistics of area it is necessary to omit the area of the lands held revenue free at last settlement, for which there are no statistics of that date forthcoming.

Total area.	UNASSESSABLE.		ASSESSABLE.						
	Revenue free.	Barren.	CULTURABLE.		CULTIVATED.				
			Old waste.	New fallow.	Irrigated.			Dry.	Total.
					Wells.	Canals.	Other sources.		
Acres.									Total assessable.
Former ... 52,005	...	7,815	4,063	...	16,894	...	...	23,234	40,128
Present ... 52,886	5	1,655	1,643 Groves 73	413	18,793	747	2	22,452	43,969

Judging of the whole tract by these villages, of which we have statistics, the cultivated area has increased by rather more than 7 per cent; of this area the proportion provided with irrigation is now 48 per cent. as compared with 42 per cent. at last settlement, so that the irrigated area has increased both absolutely and relatively with regard to the cultivated. The area of old waste is very much smaller than it was, especially when it is remembered that much of the area classed as barren previously has now been more accurately recorded as cultivable waste.

The statistics of area for the whole tract by the present survey are as follows :—

		Acres.
Total area	...	67,899
Not assessable	Revenue free	2,583
	Sites	633
	Rivers, canal, &c.	567
	Barren waste	4,083
Total unassessable	...	7,865, or 11·6 per cent. of total area.
Assessable	Groves	224
	Old waste	5,590 } or 10·2 per cent. of total area.
	New fallow	1,158
	Irrigated from wells	22,772
	Ditto canal	2,469
	Ditto other sources	14
	Total irrigated	25,245, or 47·6 } per cent. of cultivation.
	Unirrigated	27,817, or 52·4 }
	Total cultivated	53,062, or 78·3 } per cent. of total area.
	Total assessable	60,034, or 88·4 }

The percentage of irrigation over the whole pargana is 49 per cent., so that the tract is inferior to the more easterly portion; on the other hand, the proportion of the total area under cultivation is 78 per cent. as compared with 76·8 per cent., the average of the pargana.

The following remark made by Mr. Smith, Settlement Officer, with respect to the pargana as a whole, is also applicable to this portion of it: "Except from the canal, there will not be much increase in irrigation. Except as an aid after rain, the water in the wells is almost useless, so that there is not much temptation to enlarge the well area, while in about half the pargana wells cannot be sunk remuneratively."

Crops. The following statement shows the area occupied by each of the crops grown :—

Crop.	Kharif.														Rabi.														Total cultivated.									
	Cotton.	Bajra.	Juér.	Moth.	Gowar.	Sugarcane.	Indigo.	Makka.	Urd.	Kangul.	Mung.	San.	Arhar.	Total.	Gram.	Bejhar.	Wheat.	Barley.	Gujal.	Solan.	Sanson.	Kachiyána.	Carota.	Tobacco.	Fallow.	Total.												
Area ...	13	7,899	9	5,070	30	16,160	3	1,171	6	563	343	120	88	58	45	35	18	15	60	33,075	11	6,033	10	5,399	9	4,925	7	3,925	59	240	156	127	46	32	67	40	31,391	54,366
Percentage ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

As is natural the percentage of kharif is large, but the class of crops with 30 per cent of juár and 13 per cent. of cotton is not inferior. The large proportion of gram and bejhar of itself would indicate deficient irrigation. First class crops, such as sugarcane, indigo, and kachhiyána, hardly exist. Moreover the juár, wheat, and cotton are, though fairly common, of an inferior character, and the crop test would, as Mr. Smith remarks, be a most fallacious one in determining the fertility of this tract.

Prices. The following statement shows the average prices of the chief articles of produce for three periods anterior to 1280 fasli.

		From 1248 to 1258.	From 1259 to 1269.	Difference.	From 1270 to 1280.	Difference compared with 1st period.	Difference compared with 2nd period.
		Mds. s. c.	Mds. s. c.		Mds. s. c.		
Wheat	...	0 34 13	0 34 3	Rise 2 per cent.	0 23 13	Rise 52 per cent.	Rise 50 per cent.
Barley	...	1 6 3	1 4 13	Do. 3 ditto.	0 33 0	Do. 42 ditto.	Do. 35 ditto.
Gram	...	0 38 7	1 1 14	Fall 9 ditto.	0 30 2	Do. 27 ditto.	Do. 39 ditto.
Juár	...	1 7 7	0 39 8	Rise 30 ditto.	0 28 10	Do. 65 ditto.	Do. 38 ditto.
Báira	...	1 3 4	0 35 10	Do. 18 ditto.	0 26 6	Do. 64 ditto.	Do. 39 ditto.
Cotton	...	0 5 2	0 4 1	Do. 26 ditto.	0 2 11	Do. 90 ditto.	Do. 51 ditto.

There has been a steady rise since 1857, and prices generally may be said to be half as high again as they were at last settlement.

The census of 1865 returned the population of this tract as 49,833; in 1872 it amounted to 53,486, an increase of 8 per cent. The present density of population is one of 647 inhabitants to the square mile.

Cultivating tenures. The distribution of the cultivated area is shown in the following table :—

Tenure.	Number of holders.	Area.	Percentage of total cultivated area.	Rent.	Rate.	Under-tenants.	
						Area.	Rent.
		Acres.		Rs.	Rs. a p.	Acres.	Rs.
Sir ...	2,337	13,960	25	32,982	...	1,533	5,339
Privileged tenants ...	58	368	1	935	...	...	...
Rent free ...	549	908	2	Nil.	...	128	236
Total ...	2,944	15,236	28	33,917	...	1,661	5,675
Occupancy tenants.	Resident ...	4,285	21,917	...	58,781	1,501	5,137
	Non-resident ...	961	3,930	...	11,417	284	986
	Total ...	5,246	25,847	43	70,198	1,785	6,123
Tenants-at-will ...	Resident ...	2,087	11,331	...	38,160	379	1,333
	Non-resident ...	476	1,952	...	5,837	102	398
	Total ...	2,563	13,283	24	41,997	481	1,738
Total tenants ...	7,809	39,130	...	1,12,195	2 13 11	2,366	7,854
GRAND TOTAL ...	10,753	54,366	...	1,46,112	2 11 0	3,927	13,539

NOTE.—This statement includes both khálsa and revenue-free lands.

The proportion held as sir has diminished since last settlement, while that occupied by tenants-at-will has increased largely; the area cultivated by occupancy tenants having remained almost unchanged. Still the latter class of tenants hold more than two-thirds of the land in the possession of tenants and nearly half the whole cultivation.

The rents paid are very low, almost the lowest in the Agra district ; and the rent-rate in this tract, Rs. 2-11-0, is considerably lower than the average of the pargana, which is Rs. 3-1-0 an acre. This remark applies to the rates paid by the different classes of tenants also.

Class of tenants.					Rent-rate over the whole par- gana of Fārah.	Rent-rate in this tract.
					Rs. a. p.	Rs. a. p.
Occupancy tenants	...	...	...	...	3 4 1	2 11 6
Tenants-at-will	...	...	...	...	3 7 3	3 2 8
Average					3 5 1	2 18 11

This marked difference indicates an inferiority in this portion of the pargana which has been observed before. Excluding the revenue-free village of Gadaya Latifpur, the present recorded rental is Rs. 1,43,860. Calculating at the general tenant rate it would be Rs. 1,52,552, and at the rate paid by tenants-at-will Rs. 1,68,327.

The revenue at half assets of this corrected rental would be Rs. 84,163, which would involve a slight reduction on the present revenue of Rs. 84,932. But the actual rates found prevailing show that the patwāris' returns supply a very inadequate representation of the real rise in rents ; and the rents now paid have not followed the rise in the value of the land.

The classes of soils to be found in this tract are similar to those in other parts of this district, and probably also in the adjoining parts of the district of Muttra. But the rates paid are by no means so. The inferiority in the irrigation and the recorded rentals alike point to a lower range of rates than has been prevailing further to the east.

The following table shows the soils of which the cultivated area is composed and their areas, and the rates at which Mr. Smith assessed them :—

Class of soil, including all particulars of irrigation, &c.				Area in acres.	Rate sanctioned,	Value.
					Rs. a. p.	Rs. a. p.
Upper land or bāngar.	Irrigated	Gonda	...	3,840	7 9 0	26,887 0 0
		Manjha	...	3,644	5 0 0	18,220 0 0
		1st dumat	...	14,206	4 6 0	62,151 0 0
		2nd do.	...	670	4 0 0	2,680 0 0
		Piliya and bhūr	...	357	3 8 0	1,250 0 0
	Total			22,717	4 14 3	1,11,188 0 0
	Unirrigated	Gonda	...	217	4 8 0	976 0 0
		Manjha	...	834	3 12 0	3,128 0 0
		1st dumat	...	16,611	3 0 0	49,833 0 0
		2nd do.	...	3,515	2 10 0	9,227 0 0
		Piliya and bhūr	...	6,005	2 4 0	12,512 0 0
	Total			27,671	2 12 7	77,165 0 0
Kachār or khādar.	Canal irrigat- ed, assessed as dry.	Gonda	...	195	8 4 0	877 0 0
		Manjha	...	255	3 12 0	956 0 0
		1st dumat	...	1,911	3 0 0	5,733 0 0
		2nd do., chiknot	...	76	2 10 0	199 0 0
		Piliya and bhūr	...	22	2 4 0	50 0 0
	Total			2,459	3 2 0	7,815 0 0
	Total bāngar			52,847	3 11 5	196,168 0 0
	Irrigated	Gonda and manjha	...	39	5 4 0	205 0 0
		Har	...	29	4 8 0	130 0 0
	Total			68	5 0 0	335 0 0
Kachār or khādar.	Unirrigated	1st class	...	104	4 0 0	416 0 0
		2nd do.	...	7	3 0 0	21 0 0
		3rd do.	...	36	1 8 0	54 0 0
	Total			147	3 5 5	491 0 0
	Total kachār			215	3 13 5	826 0 0
	Total cultivated			53,062	3 11 4	196,994 0 0
	Irrigated			22,785	4 14 3	1,11,523 0 0
	Unirrigated			30,277	2 13 2	85,471 0 0

The rental thus resulting from these rates is Rs. 1,96,994, with a rent-rate of Rs. 3-11-4 an acre. The rate of the rental resulting from the application of these rates to the pargana as a whole was Rs. 3-12-3, so that the difference in the comparative value of the two portions of the pargana would be represented by a difference of something over 2 annas on the rate per acre. The incidence of the rates on the kachár area is Rs. 3-13-5, but that area is so small that the average rate for the bángar or uplands is but little below the general average rate, being Rs. 3-11-5. The incidence on the irrigated lands is Rs. 4-14-3 an acre, on dry lands Rs. 2-12-7. Canal-irrigated land has been assessed as dry, but, owing to the superiority of the class of lands so irrigated in this tract, the dry rates give a rental falling at the average rate of Rs. 3-2-0 an acre. Thus with 47 per cent. of irrigation the

				Rs. a. p.
Irrigated rate is	...	...	...	4 14 3
Unirrigated	...	...	...	2 13 2
Cultivated	...	...	...	3 11 4

The corresponding rates for the pargana of Fáraḥ as a whole were—

				Rs. a. p.
Irrigated rate	...	...	...	4 14 3
Unirrigated	...	...	...	2 12 10
Cultivated	...	...	...	3 12 3

There is thus some inferiority in the irrigated lands of this portion of the pargana, the dry lands being generally of average quality; and as compared with the other parganas of the Ágra district, the irrigated rate is very much lower than anywhere else; the unirrigated rate lower than in any of the Cis-Jumna parganas except Khairágarh.

These assessments, giving a rental of Rs. 1,96,994, point to a revenue demand of Rs. 98,497. The revenue which resulted finally from the assessment of the individual villages was Rs. 97,630, only Rs. 867 below the estimate. This involved an increase of Rs. 12,698, or 15 per cent.

The incidence of the former and the revised revenues is as follows :—

	Reve- nue.	Total area.	Rate.	Cultura- ble area.	Rate.	Cultiva- ted area.	Rate.
	Rs.	Acres.	Rs. a. p.	Acres.	Rs. a. p.	Acres.	Rs. a. p.
Former revenue	84,932	67,899	1 4 0	...	1 6 7	...	1 9 6
Revised ditto	97,630		1 7 0	60,034	1 10 0	53,062	1 13 6

The 14th February, 1879.

H. F. EVANS.  
Settlement Officer, Ágra.







33	60	Chaukipur kalan, mahál Bholu.	886	1,400	1,120	73	0	0	70	38	...	1	4	1	...	15	17	39	1 13 6	1 14 3	2 3 0
61	61	Ditto mahál Purna ...				47	8	0	50	24	...	2	1	...	...	10	11	21	2 1 4	2 4 4	2 6 1
62	62	Ditto ditto Pohna ...				101	0	0	100	55	...	1	5	...	...	22	27	49	1 13 1	1 13 8	2 0 7
63	63	Ditto ditto Tuhirám ...				94	0	0	100	53	...	1	4	...	...	17	38	45	1 14 2	1 14 9	2 3 6
64	64	Ditto ditto Belhár ...				42	0	0	40	25	...	...	2	...	...	5	17	22	1 9 7	1 10 8	1 13 1
65	65	Ditto ditto Dhan Singh,				3	4	0	3	1	...	...	...	...	...	1	...	...	3 0 0	3 0 0	3 0 0
66	66	Ditto ditto Shamlat ...				693	0	0	710	382	...	13	17	...	...	166	136	302	2 3 6	2 3 6	2 6 7
67	67	Ditto ditto Khemá ...				36	4	0	24	15	...	3	...	...	...	4	8	18	1 9 7	1 11 1	2 0 0
68	68	Ditto ditto Gangaram ...				34	8	0	35	20	...	...	2	...	...	5	13	18	1 12 0	1 12 0	1 15 1
69	69	Ditto ditto Mayaram ...				7	8	0	8	...	...	...	...	...	...	...	...	...	2 10 8	2 10 8	0 11 8
70	70	Chaukipur khurd ...				50	0	0	70	118	...	9	...	...	...	10	86	96	0 9 11	0 10 9	0 11 8
71	71	Chernura ...				760	0	0	950	1,147	...	254	165	...	...	252	368	630	0 13 3	1 1 3	1 8 6
72	72	Chandrar Bhan ...				657	0	0	760	424	...	32	15	...	...	189	186	375	1 12 8	1 15 0	2 0 5
73	73	Chhergaon ...				2,001	0	0	2,200	1,423	...	46	80	...	...	593	698	1,291	1 9 8	1 10 6	1 12 3
74	74	Hassanpur, mahál Bhopal				87	8	0	90	57	...	1	10	...	...	16	30	46	1 9 3	1 9 9	1 15 3
75	75	Ditto " Nanua,				84	8	0	80	56	...	3	9	...	...	9	35	44	1 6 10	1 8 2	1 13 1
76	76	Deulatpur ...				1,354	0	0	1,400	914	...	67	99	...	...	295	438	733	1 8 6	1 10 5	1 14 6
77	77	Dhaneh Teja ...				647	0	0	800	466	...	17	40	...	...	263	134	399	1 12 1	1 13 2	2 0 0
78	78	Ditto Shamsabad,				757	14	0	1,000	617	...	25	48	...	...	223	324	547	1 9 11	1 11 3	1 13 1
79	79	Ditto Jiwna ...				690	0	0	800	569	...	28	65	...	...	266	230	496	1 5 9	1 6 9	1 9 3
80	80	Ditto Lalchand ...				606	0	0	850	470	...	19	61	...	...	310	179	389	1 12 1	1 14 2	2 2 11
81	81	Ditto Khema ...				490	0	0	720	667	...	83	47	...	...	134	390	534	1 1 3	1 2 2	2 2 11
82	82	Ditto Wiran ...				578	0	0	660	430	...	22	13	...	...	69	335	394	1 8 7	1 9 10	2 2 11
83	83	Rahimpur ...				633	0	0	640	751	...	19	44	...	...	190	101	291	1 12 3	1 14 2	2 3 2
84	84	Rasu ...				830	0	0	710	751	...	105	133	...	...	184	307	491	0 15 11	1 1 7	1 7 1
85	85	Raipura Jat ...				313	4	0	1,050	590	...	35	34	...	...	336	184	520	1 12 6	1 14 3	2 0 3
86	86	Sarapur, mahál khurd,				870	0	0	320	185	...	6	14	...	...	82	89	164	1 11 9	1 12 7	1 15 2
87	87	Ditto " kalan...				1,211	12	0	1,180	650	...	25	24	...	...	279	314	593	1 13 1	1 14 2	1 16 10
88	88	Salempur ...				631	8	0	1,060	1,451	...	561	243	...	...	278	306	584	0 11 1	1 13 0	1 13 0
89	89	Sanora khurd ...				1,608	8	0	1,500	732	...	32	60	...	...	121	105	326	1 15 6	2 1 2	2 4 9
90	90	Ditto kalan ...				2,072	8	0	2,480	1,484	...	101	111	...	...	249	337	636	2 0 9	2 2 3	2 5 8
91	91	Sirsa ...				850	0	0	1,120	84	...	19	79	...	...	731	530	1,251	1 11 0	1 13 0	1 15 8
92	92	Shahpur ...				850	0	0	830	467	...	28	6	...	...	359	589	748	1 5 2	1 5 7	1 7 11
93	93	Shahzadpur Panri ...				1,227	0	0	1,260	878	...	38	137	...	...	143	244	437	1 6 11	1 13 11	1 14 3
94	94	Ditto Gujjar ...				680	0	0	800	497	...	16	11	...	...	226	466	692	1 6 5	1 7 10	1 13 1
95	95	Fateha ...				...	...	...	...	...	...	...	...	...	...	191	278	469	1 9 9	1 10 8	1 11 3
96	96	Farah ...				1,620	0	0	...	25	...	25	...	...	...	...	...	...	...	...	...
97	97	Kirari ...				1,620	0	0	1,710	964	...	46	48	...	...	602	251	853	1 12 5	1 13 10	2 0 0
98	98	Karapur ...				720	0	0	760	639	...	12	94	...	...	189	317	606	1 2 9	1 3 2	1 7 8
99	99	Karkonda ...				1,208	0	0	1,500	989	...	63	17	...	...	485	418	903	1 8 3	1 9 11	1 10 7
100	100	Kawalla ...				1,117	0	0	1,140	794	...	55	80	...	...	233	319	613	1 7 0	1 9 3	1 13 9
101	101	Koh ...				919	0	0	1,180	793	...	74	43	...	...	372	264	640	1 7 10	1 10 3	1 13 6
102	102	Kheriya ...				1,016	0	0	960	497	...	23	30	...	...	157	297	454	1 14 11	2 0 6	2 1 9
103	103	Kharait ...				301	0	0	510	83	...	358	36	...	...	164	241	405	0 10 2	1 2 4	1 4 1
104	104	Ganjoli ...				1,599	0	0	1,830	1,053	...	77	58	...	...	448	493	941	1 10 11	1 12 11	1 14 10
105	105	Gariya Latifpur, mahál				...	...	...	1,830	2,466	...	486	495	...	...	404	726	1,180	0 11 11	0 14 10	1 9 9
106	106	ghar lhtimál.				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
107	107	Garhi Tehal				78	0	0	160	110	...	3	26	...	...	...	80	80	1 7 3	1 7 11	2 0 0
108	108	Garhi Rambal				326	0	0	400	219	...	1	31	...	...	...	42	69	1 8 9	1 9 2	1 9 6
109	109	Gokalpur				450	0	0	500	311	...	6	49	...	...	111	70	181	1 13 2	1 14 0	2 3 4
110	110	Lohara				910	0	0	1,200	899	...	17	79	...	...	151	90	241	1 9 8	1 10 2	2 1 2
111	111	Mal				1,530	0	0	1,650	1,068	...	95	125	...	...	205	571	776	1 5 4	1 5 9	1 8 3
						...	...	...	...	...	...	...	...	...	...	479	365	844	1 8 8	1 11 1	1 16 3

General statements of Farak villages transferred to Muttra—(concluded.)

Number of village.	Number of mahal.	Name of village.	Revenue of 1st settle- ment.		Revenue of 2nd settle- ment.		Revenue of 3rd settle- ment.		Revenue of 4th settle- ment.		Expiring revenue.		Proposed revenue.		TOTAL AREA.		MIRZAI AREA.		MALOUBATI AREA.						Assessment on total area per acre.	Assessment on irrigated land cultivated and cul- turable per acre.	Assessment on cultivated acre.
			4.	5.	6.	7.	8.	9.	10.	11.	12.	Culturable waste.	Lately abandoned.	Groves.	Irrigated.	Unirriga- ted.	18.	19.	20.	21.							
1.	2.	3.	Rs.	Rs.	Musaf	Rs.	Rs.	Rs. a. p.	Rs.	Rs.	Rs. a. p.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.				
71	112	Mubuddinpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
72	113	Makdum	425	550	609	390	390	0 0 0	740	1,049	161	87	130	...	178	493	671	0 11 3	0 13 4	1 1 7	1 12 6	1 1 7	1 1 7				
73	114	Mirzapur Brahmin	1,260	1,360	1,450	1,120	1,120	0 0 0	1,090	597	16	65	...	...	201	314	515	1 13 2	1 14 0	2 1 10	2 1 10	2 1 10	2 1 10				
74	115	Ditto Nagla	101	172	250	300	300	0 0 0	480	351	4	39	9	...	180	119	299	1 5 10	1 6 2	1 9 8	1 9 8	1 9 8	1 9 8				
75	116	Mustafabad	2,851	4,000	2,750	2,250	2,250	0 0 0	2,400	1,592	77	154	53	...	662	636	1,298	1 8 2	1 9 4	1 13 7	1 13 7	1 13 7	1 13 7				
76	117	Malakpur	952	1,300	1,300	1,020	1,020	0 0 0	1,300	622	17	38	9	...	457	95	552	1 14 10	1 15 9	2 2 9	2 2 9	2 2 9	2 2 9				
77	118	Mahawan	1,005	1,350	1,350	1,320	1,320	0 0 0	1,770	1,006	55	12	...	...	557	382	939	1 12 2	1 13 9	1 14 1	1 14 1	1 14 1	1 14 1				
78	119	Mirpur	...	...	1,325	1,150	1,150	0 0 0	1,150	830	29	82	15	...	158	546	704	1 2 8	1 6 11	1 10 1	1 10 1	1 10 1	1 10 1				
79	120	Meghpur	934	900	2,000	750	745	0 0 0	760	455	13	20	2	...	202	188	396	1 11 11	1 13 0	1 15 9	1 15 9	1 15 9	1 15 9				
80	121	Nagla Abhna	...	...	Musaf	...	...	...	490	340	22	39	24	...	125	122	248	1 7 1	1 6 8	1 15 7	1 15 7	1 15 7	1 15 7				
81	122	Ditto Deokishan	...	...	...	...	...	...	230	99	1	4	...	...	75	19	94	2 3 6	2 8 11	2 5 5	2 5 5	2 5 5	2 5 5				
82	123	Nurullapur	679	401	425	220	220	0 0 0	290	250	5	32	36	...	79	98	177	1 2 6	1 2 11	1 10 2	1 10 2	1 10 2	1 10 2				
83	124	Nagla Hirdai	...	535	535	360	360	0 0 0	360	265	8	44	10	...	78	123	293	1 5 9	1 6 6	1 12 4	1 12 4	1 12 4	1 12 4				
84	125	Hataoli	587	700	700	700	694	0 0 0	790	415	10	32	...	3	274	96	370	1 14 5	1 15 3	2 2 2	2 2 2	2 2 2	2 2 2				
		Total	29,119	55,046	86,323	71,710	84,932	0 0 0	99,610	67,699	26	5,772	6,111	1,489	229	25,649	28,623	54,272	...	...	...	...	...	...			
		Deduct the musaf village Garbia Latipur.	...	...	...	...	...	...	1,980	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
		Total revenue of khal- sa villages.	...	...	...	...	...	...	97,630	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			

AGRA SETTLEMENT OFFICE :  
The 14th February, 1879.

H. E. EVANS,  
Settlement Officer, Agra.

# ORDERS OF GOVERNMENT.

No. 1198 OF 1881.

## RESOLUTION.

REVENUE DEPARTMENT.

*Dated Naini Tal, the 1st August, 1881.*

READ—

Letter No. <sup>160</sup>—, dated the 1st September, 1880, from the Secretary to the Board of Revenue,  
I.-152  
North-Western Provinces, with which was submitted the final Settlement Report of the  
Muttra district.

OBSERVATIONS.—The district of Muttra was re-surveyed, and the settlement of the land-revenue revised between the years 1872 and 1877. At the time of this revision the district comprised 1,346 square miles. Its area has since been increased to 1,452 square miles by the transfer of 84 villages from the adjoining Agra district; but with these the Settlement Report has no concern. The Board have fully reviewed the proceedings of the Settlement Officers, and to their review the remarks now recorded are intended to be supplementary.

2. The physical features of the district are well brought out in Mr. Whiteway's report. Lying, as it does, on the frontiers of Rájputána and the Panjáb, Muttra or rather the western portion, in its bare treeless plains and dry climate, bears a strong resemblance to those tracts. The Jumna, flowing through the district from north to south, divides it into two nearly equal parts. The left bank with the country behind it belongs geographically to the Jumna-Ganges Doáb. The right bank, on which the pargana and city of Muttra lie, stretches westwards towards the sands and bare hills of Rájputána. From the stand-point of Muttra city, the former may be correctly termed, as in Mr. Whiteway's report, the trans-Jumna, and the latter the cis-Jumna territory. But with reference to the Gangetic Doáb and the province generally, these appellations should be reversed. Whatever phraseology be employed, the marked differences, which the two tracts present in aspect, agriculture, and rural economy, cannot be overlooked. The country between Aligarh on the east and the left bank of the Jumna—the trans-Jumna parganas in Mr. Whiteway's nomenclature—is well-wooded, fertile, and thickly-peopled; while the high-class crops and the careful tillage and irrigation of the soil betoken the presence of the labourious Ját cultivator. West of the Jumna—the cis-Jumna parganas—the apathetic Thákur predominates, trees are scarce, and the fields half cultivated; while the small and thickly-scattered hamlets of the trans-Jumna country are replaced by large semi-fortified villages, memorials of the days of Mahratta inroads or Ját invasions from Bhartpur. Here the village community still retains vitality; and among the numerous proprietary and cultivating brotherhoods, many curious economic and social customs prevail, which Mr. Whiteway has fully described.

3. These distinctions are due to a variety of causes,—physical, historical, and economical. Among the physical causes the chief is the varying

abundance and quality of water in the two tracts. In the trans-Jumna parganas the water is not only nearer the surface, but it is more uniformly good. On the right bank of the Jumna the wells are frequently brackish, and in parts of the Muttra and Chhátá tahsils the only water fit to drink is that retained after the rains in ponds and tanks. Many kinds of saline water are, however, very beneficial to the crops in ordinary years, though in seasons of drought they are absolutely hurtful. It is not surprising that well-irrigation is much more common in the trans-Jumna than in the cis-Jumna tract. In the former 77 per cent. of the whole cultivated area is commanded by wells, while in the latter only 30 per cent. is thus protected. To this scarcity of water the sparse population of the cis-Jumna tract is in a great measure to be ascribed. There was little inducement to the colonist to settle there, as long as land was to be had on the other bank. The cis-Jumna parganas have also been peculiarly liable to famine. The soil in years of drought becomes caked and unworkable, while the generally salt character of the wells prevents their being used independent of rain. Thus the population has been steadily kept down. In the Chhátá pargana, according to the recent census, there were only 331 persons to the square mile. In the trans-Jumna pargana of Mahában there are 485. To this result, however, the political has probably co-operated with the physical cause, as the country on the right bank of the Jumna has always been more exposed to war and inroads from Rájputána and Mewát than the Doáb parganas behind the river. Through similar historical causes the Thákur stocks came to predominate on the right bank, and the more industrious Játs on the left. Bad water, an insufficient and indolent population, and more acres than there were ploughs to till them, have naturally produced the careless and unproductive system of agriculture which is still to be seen in the cis-Jumna half of the Muttra district. Cane and indigo are almost unknown, garden-crops are rarely grown, and the area under wheat is very small. The cultivator depends for his food on the coarse autumnal staples of *juár* and other millets, and for his rent on the cotton plant. In the trans-Jumna tract also cotton is the favourite rent-paying crop ; but in addition to it the Ját agriculturist has his well-tilled fields of wheat, barley, and maize, and his garden-crops of tobacco, potatoes, and other vegetables. These marked distinctions between the two halves of the district will probably in time be to a great extent obliterated. The effect of the Agra Canal, which passes through the heart of the cis-Jumna tract, in a line roughly midway between the river and the Bhartpur hills, is already visible. Mr. White-way notices the industrial spirit which it inspires among even the most indolent castes, and the revolution it is causing in traditional agriculture. The result of canal-irrigation in the district of Muzaffarnagar was very similar, as it is there acknowledged to have been more potent in weaning the Gújar and Ahír from their predatory pursuits than the Penal Code or the police. Next to water, the want of the cis-Jumna parganas is population; it has actually decreased in the last decade. But as this must be ascribed mainly to drought, and as the best protective against drought is irrigation, the influence of the canal on population will not be unimportant.

4. In the character or quality of the soil there is no marked difference between the two portions of the district. In each along the valley of the Jumna extensive alluvial tracts (*khádir*) occur, of every degree of fertility. The presence of the river is further marked by a net-work of ravines and sand-hills, through which the drainage of the uplands flows. But beyond the ravines the soil on both banks is singularly uniform in quality. It consists for the most part of a light, easily-worked loam, locally known as *piliya*. It is said to be quite as good as *dúmat* for the majority of crops usually grown, and is especially adapted for cotton. Here and there it becomes harder and more clayey, approximating to the heavy loam (*dúmat*) of other districts: elsewhere it degenerates into a light sandy soil, known as *bhúr* and *púth*. There are thus no sharp distinctions between natural soils, but an innumerable number of gradations. And where man has come to the aid of nature, the defect or excellence of the soil itself goes for nothing. This will be further noticed when the principles of assessment come under review.

5. With a light porous soil and a dry climate, irrigation is essential to all the higher classes of crops. The trans-Jumna tract is, as already noticed, amply supplied with wells. In pargana Sahpau, for instance, almost every rood of cultivated land is actually irrigated, or capable of being irrigated by some existing well. In this respect it is on a level with pargana Háthras of the adjoining district of Aligarh, and may rank with it as one of the most highly-developed tracts in the province. On the subject of well-irrigation Mr. Whiteway has collected much useful information. Of the 40,000 wells in the district, one-eighth are masonry, one-fourth have wooden cylinders, and most of the rest are lined with twig to prevent the sub-soil slipping. The remarkable fact that the number of masonry wells has decreased during the last thirty years is attributed by Mr. Whiteway to the greater cheapness of other classes of wells. A well lined with wood can be constructed for Rs. 50, one lined with twig for Rs. 10, and either kind will last for a number of years. A masonry well on the other hand costs at least Rs. 200. That the cultivator is tempted to distribute his capital over several cheap wells can be readily understood. At the same time the masonry well in the long run is the most paying, as besides its durability it usually taps the permanent spring-level, and thus irrigates a larger area. The tube-wells, which are now being sunk in Moradabad, would, if they succeed, be well suited for parts of Muttra, as by them the spring-level is reached at a comparatively small cost. In connection with this and other State well projects the information collected by Mr. Whiteway, as to the varying property of well-water, is of much value.

6. In chapter II. full details are given of the chief castes by whom the land is owned or cultivated. The district is essentially a Hindu one. Though Muhammadans own about one-fifth of the whole area, they are chiefly town-dwellers, and are outnumbered by the Hindus in the proportion of one to eleven. Both as proprietors and tenants, the Játs are the strongest race. They own one-half the soil, and form the backbone of the cultivating classes. They are most numerous in the trans-Jumna parganas, though their possessions are now but one-half what they

were when the district first passed into British hands. In the west the Thákur stocks predominate, though they too have lost much of their land. Everywhere the gain has been with the baniya and the Brahmin castes, of whom the former now own one-seventh of the entire area in place of two villages, while the latter have increased their estates from one-eighth to one-fourth of the district. The number of non-resident proprietors is consequently large. Out of 48,000 landholders, over 9,000 are non-resident, while the area held by them is nearly one-half of the whole district. Unfortunately, the new race of landlords is by no means an improvement on the old. In Sahpau the bulk of the zamíndárs are now, says Mr. McConaghey, "purely speculators in land," who are "little inclined to treat their tenants with moderation, much less with leniency." The same state of things is found in the other trans-Jumna parganas. The "frightful extent" to which the land has changed hands in this tract, since the beginning of the century, is undoubtedly due to the severity of successive settlements. "The result has been the replacement of the hereditary yeoman by a body of grasping traders and speculators, who are not connected with the soil by any ancient traditions, and who look upon the land merely as a good investment for their capital. The causes which have brought about this state of things are various; but to the high incidence of Mr. Tyler's assessment, and to the small margin of profit left to the zamíndárs for the first 15 or 16 years of his settlement, must in a great degree be attributed many of the alienations which have taken place." It is, however, consolatory to find that even in these eastern parganas, where the commercial principle of land management is strongest, tenant-right has not been broken down. Half the area cultivated by tenants in the trans-Jumna parganas is held under right-of-occupancy. Compared with the figures for 1851 the occupancy area has actually doubled. The rent-rate reports of the several parganas also show that the occupancy-tenant pays a decidedly lower rate of rent than the tenant-at-will; thus in pargana Sadabad the rate paid by tenants-at-will is 11 per cent. higher than that paid by occupancy-tenants, "though the latter cultivate land of a better quality all round." Mr. Whiteway also proves that while the average rent of the tenant-at-will has risen 42 per cent. in pargana Mahában since 1850, that of the occupancy-tenant has risen by only 10 per cent. (page 88). For this substantial protection of their cultivating rights, the tenantry are greatly indebted to the officers by whom the settlement records were revised in 1851. Every care was then taken to record *maurúsi* rights where they were found to exist; and though no definite period of prescription existed, the proprietors were "found in general ready after brief argument to accede to the demands of a cultivator who had cultivated for any lengthened term the same fields on fixed rates" (page 46). The extract given by Mr. Whiteway from the records of 1851, here quoted, has a further interest. In discussions about the twelve-year rule of occupancy established by Act X. of 1859, the Legislature has sometimes been taxed with having introduced a novel and arbitrary principle, highly detrimental to the rights of the landholder. But the records of 1851 exhibit the Settlement Officer adopting twelve years as the ordinary period of prescription in cases when the



claim of the cultivator to occupancy-rights was doubtful. As Mr. Whiteway says, "the method then adopted varies but little from that now enforced by the law."

7. In the cis-Jumna or western parganas, not only has the soil remained to a much greater extent with the original owners, but the tenantry are protected by peculiar customs regulating the standard of rent. Transfers of land in this tract have been chiefly confined to the first years of British rule, when landholders were wheedled by unscrupulous speculators out of their proprietary rights, before they had learnt to know the value of them. Of these land-jobbers the mendicant known as the Lála Babu, who built up a large estate in Muttra and elsewhere in the early days of the century, is the most famous. When this period of fraud ended, the light assessment, which the cis-Jumna parganas uniformly enjoyed, enabled the proprietary brotherhoods of Ját and Thákurs to preserve their possessions intact. Here the village community still survives in all its strength, and the most interesting pages of Mr. Whiteway's report are those in which the peculiar features of these agricultural commonwealths are sketched. The first instance is one of a large Ját estate or *taluka*, situate not in the cis-Jumna tract but in Mát on the left bank of the river. By repeated division and sub-division a large estate originally held in common ownership by a Ját brotherhood has been split up into a bewildering number of commingled yet separate properties. Each partition proceeded on the basis of assigning to each co-sharer a portion of each description of land comprised in the common estate. The final result of a long series of sub-divisions is to give each owner a fractional share in each of half a dozen fields lying, it may be, furlongs apart. But the anomalous tenures, which the cis-Jumna tract presents, are even more striking. The two points, which characterise these *bhaiyachára* villages or cultivating brotherhoods, are—(1) the conflict between actual possession and ancestral shares; and (2) the frequent enjoyment by the tenants of privileges elsewhere exclusively confined to the proprietary body. In regard to the first, it is not necessary to follow Mr. Whiteway through the various customs which prevail. Sometimes actual possession holds good for land already divided, while the ancestral share governs each co-sharer's claim to the common land: sometimes the ancestral right has dropped out of sight altogether: at other times it is strong enough to cause a re-distribution of lands held in severalty. In the rent-rate report on pargana Kosi, Mr. McConaghey thus details the constitution of one of these villages:—

"The tenure is a most exceptional one. Ancestral shares have never been recorded, nor is it known how much belongs to the Jádons and how much to the Brahmans. In the khewat names alone are entered. Separate possession is not recognised, nor do the sharers even hold the same area of *khudkásht* or *sír* from year to year. Their cultivation is always changing. The Government jama, local cesses, and village expenses are paid by a *bachh* on the land cultivated during the year; and tenants also pay the *bachh*. The zamíndárs themselves cannot tell their shares, nor do they wish any inquiry to be made on the subject. At the revision their wish was respected, and the khewat was then a mere record of names. On the decease of a sharer, his heirs' names have been entered, nothing more. All disputes are settled by the proprietary community in open council."

8. This illustrates Mr. Whiteway's conjecture that originally in these *bhaiyachára* communities the only measure of ownership was the amount of land actually occupied and cultivated by each member of the brotherhood. Mr. Whiteway himself cites instances of villages in which the extent of each proprietor's share is estimated in ploughs, or in fractional parts of a well-run, or of the bullocks required to work it. In parts of Rájputána proprietary ownership of the soil can be acquired by making a well. In all these cases the principle is the same. Land at certain stages of society is not in itself a valuable commodity.

9. The second point—the peculiar privileges enjoyed by tenants—has more than an antiquarian interest. If a fixed and low rent be the highest good of a tenantry, the system sanctioned by tradition in these cis-Jumna parganas best secures it. The peculiarity is that the tenants in many of these *bhaiyachára* villages are not required to pay more than the share of the Government revenue and village expenses that is proportionate to the land held by them. They hold, as it is termed, at "revenue-rates." In these villages the bulk of the land is cultivated by the members of the brotherhood themselves. The surplus land alone is held by tenants ; and as the only contribution required from cultivating proprietors by the village council is their quota of the land-tax and other expenses, the custom grew up of dealing with any tenants there might be in the same way. In fact, the principle which originally made cultivating possession synonymous with ownership, has been instinctively extended to the ordinary tenant, who does not belong to the brotherhood. The distinction between rent proper—the letting value of the land—and revenue is thus obliterated, or rather unknown in these *bhaiyachára* villages. The difficulty which the Settlement Officers found in assessing them will be noticed elsewhere. Here the important point to observe is the salutary effect of this system of revenue-rates. "In preventing," as Mr. Whiteway says, "any but the actual cultivator deriving any profit from the land, this principle is the key-stone of the tenure, as it excludes from the sharers all except those who look to the actual cultivation of the land for their profit."

10. Of the entire cultivated area of the district (649,293 acres), 220,542, or more than one-third, is held as *str* by proprietors : 199,862 acres by tenants with occupancy rights : 1,445 acres by ex-proprietary tenants, and the rest by tenants-at-will. The land is therefore held in three nearly equal parts by proprietors, occupancy-tenants, and tenants-at-will. But taking the two divisions of the district separately, 71·8 per cent. of the area will be found held by the two first classes in the cis-Jumna parganas, against 58·8 per cent. in the trans-Jumna. In the cis-Jumna tract only 26·8 per cent. is held by tenants-at-will, against 40·1 per cent. in the trans-Jumna. The extent of land on the right bank of the river occupied by persons, who, whether as cultivators or proprietors, enjoy fixity of tenure, is remarkable. In connection with this subject, Mr. Whiteway's remarks on the stability of occupancy tenures are interesting. The inquiries made by him into the history of the tenants of certain selected villages showed that very few of the tenures in existence in 1851 had disappeared. On the ability of the cultivator to maintain through bad seasons and short

harvests the rights won for him by prescription, the effect of any system of tenant-right must depend. The facts adduced by Mr. Whiteway are of a most hopeful kind.

11. In chapter III. the fiscal history of the district up to the revision of the last settlement is given. Its complexity is increased by the necessity of dealing separately with the two halves of the district up to the year 1832, when they for the first time fell under a common administration. Before that date the trans-Jumna parganas belonged to the Aligarh district, and the cis-Jumna to Agra. The successive revenue assessments were made in the two tracts by officers of different schools and capacities. The earlier settlements made no pretence to scientific accuracy : and individual judgment and opinion played a much greater part in determining the revenue of a district than is now possible. The facts recorded by Mr. Whiteway clearly prove that the cis-Jumna parganas, through their union with Agra, had a happier history than the trans-Jumna portion. The settlements from the first were there made as far as possible with the original village communities, to the exclusion of farmers or talukdárs: and the revenue imposed was extremely moderate. In 1809 the demand of the second triennial settlement for the cis-Jumna parganas, excluding Gobardhan, was Rs. 3,40,000, and this would have been declared permanent had not the sanction of the Court of Directors been fortunately withheld. The present assessment of the tract is now Rs. 6,20,000. From the former figure the demand gradually rose in successive settlements to Rs. 5,46,808 in 1837, when the regular settlement under Regulation IX. of 1833 was made. No sooner had the revision been effected, than the great famine of 1837-38 fell with full severity on the district, especially on the Kosi pargana, and was followed in 1839-41 by other disasters. This led to a reduction of the demand of Kosi from Rs. 1,63,303 to Rs. 1,52,024; and from this date the cis-Jumna tract paid its revenue without trouble and with ever increasing ease.

12. In the trans-Jumna tract the great error at the outset, though one perhaps unavoidable at the time, was that of favouring talukdárs to the detriment of the original village owners. In the first settlement, made in 1804, the whole of the tract was farmed to two powerful talukdárs of Aligarh and a half-subdued rebel, named Ranmast Khán. Their exactions led eventually to their removal, and the second triennial settlement (1808) was made generally with the village zamíndárs. But this change was accompanied by a very large increase in the revenue, and the result was heavy balances and rapid transfers of property. In 1809 the demand was Rs. 6,85,605 : by the quartennial settlement (1811) it was reduced to Rs. 6,81,380. In 1816 it was again raised by the quinquennial settlement to Rs. 7,41,917. It must have been in these years that so many estates passed away from the Ját and Thákur communities which were found in these parganas at the time of annexation. The revision of this settlement was commenced under Regulation VII. of 1822, and completed in 1834 under Regulation IX. of 1833, when the demand was fixed at Rs. 7,92,131. To this in 1840 was added some Rs. 24,000 on account of some villages received from Aligarh.

## 13. The expiring demand of the settlement under Regulation IX.

				Expiring demand.	Present assessment.	Percentage of increase.
				Rs.	Rs.	
TRANS-JUMNA	{ Sahpau	...	...	57,115	60,900	6
	{ Sadabad	...	...	2,29,672	2,55,116	11
	{ Nohjhil and Mát	...	...	2,45,856	2,81,820	14
	{ Mahában	...	...	2,88,633	3,14,287	9
CIS-JUMNA	{ Muttra	...	...	2,15,237	2,49,268	16
	{ Chhátá	...	...	1,77,308	2,02,933	14
	{ Kosi	...	...	1,51,181	1,67,040	10
Total				13,65,002	15,30,464	...

revenue has risen from Rs. 13,65,002 to Rs. 15,30,464, or by 12 per cent.

14. The character of the last settlement has already been indicated generally. In the cis-Jumna tract the incidence of the revenue was only Re. 1-10-11 the acre on the cultivated area at the expiration of the settlement. Even allowing for the great extension of cultivation—over 20 per cent.—and of irrigation, which the last 30 years has seen, the assessment must from the first have been light. In the trans-Jumna the incidence was Rs. 2-8-3 the acre even at the close of the settlement, and this must have pressed most severely on the soil during the earlier years of the settlement. In Aligarh, the revenue-rate of the recently revised settlement, which is by no means a light one, is only Rs. 2-6-3 the cultivated acre.

15. Cawnpore also is both a fully developed and a heavily assessed district: yet the incidence of the lately expired settlement was not more than Rs. 2-7-5 the cultivated acre. These two facts sufficiently attest the severity of the assessments under Regulation IX. of 1833, in the trans-Jumna parganas of Muttra. The industry of the people and the high standard of rent alone prevented the settlement from breaking down altogether. In Sadabad and Sahpau nearly every acre has been brought under tillage, and is irrigated from wells. The areas under cotton and wheat are surprisingly large, and much of the land is double-cropped. The rents paid are even higher than those of the adjoining rich pargana of Háthras. In Háthras the average rate for "irrigated outlying (*barha*) lands," which occupy 60 per cent. of the cultivation, was found by the Settlement Officer to be Rs. 5 an acre. In Sadabad and Sahpau the rent of "good" land of this class is Rs. 7-4-0, and of "fair" Rs. 6-6-0 an acre. Here, as elsewhere, the origin of this high standard of rent must be sought in continuously heavy assessments. In theory the growth of the revenue depends on the progress of rent; but practically rents have often been stimulated in their growth by a high revenue demand.

16. The severity of the last settlement is seen in the rapid transfer of land from the agricultural to the trading classes. Since the settlement under Regulation IX. of 1833 was made, one-third of the entire district has changed hands through sale or mortgage. In the cis-Jumna parganas the transfers have rarely had any connection with the Government demand; but in the trans-Jumna the bulk of them have been directly due to its severity. The increasing ease with which the revenue was met in the years after the mutiny is seen in the higher price of land, and the

of 1833 for the whole district, the present assessments, and the percentage of increase, are given on the margin. The

comparatively small number of auction sales. In the first 12 years of the settlement, 64,467 acres were sold for arrears of revenue : in the last twenty (1857-1877), only 9,914. Between 1838-50 the average price of land by private sale was Rs.  $3\frac{1}{2}$  an acre ; between 1850-57 it was Rs.  $8\frac{1}{4}$  ; between 1857-77 it had risen to Rs. 14.

17. If it be asked why a settlement, which pressed so heavily on the land in its first years, came at its close to be borne with ease, the answer is not far to seek. In the first place, prices have risen enormously. Since the mutiny the rise has been 42 per cent. in the case of wheat, and still more in the case of commoner grains. To this subject Mr. Whiteway has devoted unusual care, and he shows from an elaborate array of price-lists, that not only have prices thus risen in the open market, but that the prices which the cultivator gets in his village from the grain-dealer, the "harvest prices," have risen to a still greater degree. From 1838 to the mutiny the cultivator disposed of his wheat to the baniya at the average rate of 41 seers the rupee, and the same grain sold in the open market at 32 seers. Since the mutiny he has received on the average one rupee for 26 seers, while the average bazar-rate has been 22 seers. These figures are very instructive. It is evident that the cultivator is not only getting his share in the rise of prices generally, but is also gradually forcing the baniya to give him a better price for his produce. "It must take time," says Mr. Whiteway, "for the benefits of competition in the export trade to filter down to him, guarded and hedged as he is by custom and long-standing obligations, but in a longer or shorter time it must reach him. The harvest prices of cotton in this district during the American war are instructive in the extreme, as showing how the baniya's hand must be forced by a stimulated market."

18. In the second place, the communications of the district have been greatly improved. The roads are generally good, and the Jumna is bridged with boats at convenient places. The East Indian Railway is at no great distance from the trans-Jumna half of the district, and the light railway branch from Háthras to the Jumna has now placed the cis-Jumna portion within easy reach of the rail. In the Agra Canal this tract has also a convenient water-highway to Agra and Delhi, and to the cotton market of Cawnpore *via* the Jumna.

19. The extension of cultivation and of irrigation is the third great factor. The records of the settlement of 1833-1837 are so imperfect, that it is impossible to ascertain with accuracy the area then under cultivation ; but the revision which was made in 1848-50 furnish more trustworthy statistics, of which Mr. Whiteway has availed himself. In the trans-Jumna parganas cultivation appears to have increased about 12 per cent., and in the cis-Jumna parganas between 20 and 27 per cent. It has been least in Sahpau (5 per cent.) and greatest in Muttra (27 per cent.) The culturable waste on the left bank of the Jumna, even 30 years ago, was comparatively small, and very little is now left untilled. On the right bank there was more room for increase, and the culturable waste still amounts to 9 per cent, of the total culturable area.

20. The extension of irrigation similarly is more marked in the cis-Jumna than in the trans-Jumna tract. Taking first the trans-Jumna tahsils, the irrigated area has increased in Sahpau by 20 per cent., in Sadabad by 36 per cent., and in Mát by 71 per cent. In the cis-Jumna tahsils the increase in Kosi has been 53 per cent., in Muttra 108 per cent., and in Chhátá 141 per cent. The high development already attained in 1833 by the tract on the left bank of the river accounts for the comparatively slow increase during the last 30 years. Irrigation there has now almost reached its limit, as 77 per cent. of the cultivated area is commanded by wells. On the right bank irrigation was hardly known in 1833, and in spite of its rapid extension only 30 per cent. of the cultivation is as yet irrigated.

21. The fourth and last factor is the rise in the standard of rent, which has taken place during the settlement. Prices, it has been shown, have risen by at least 40 per cent., new marts have been opened, communications have improved, and superior staples have largely—at any rate in the trans-Jumna parganas—supplanted inferior ones. How much of these advantages have reached the landlord through the cultivator? The cis-Jumna tract has to be put out of the inquiry, since on account of the peculiar tenures there prevailing economic rent is little known. Mr. Whiteway has therefore confined his investigations to the trans-Jumna parganas. They are not, it must be admitted, as conclusive as might be wished. The average rents paid in 1833-37 cannot be ascertained. The revised records prepared in 1848-50 show that in Sahpau, Sadabad, and Mahában there has been between that date and the present an all-round rise of 22·9 per cent. But for the large tahsil of Mát even this information is not forthcoming. Carrying his analysis further, Mr. Whiteway proves that in the case of occupancy-tenants the rise in none of these three tahsils has been more than 18 per cent., while in the case of tenants-at-will it has been 28 per cent. in Sadabad and 42 per cent. in Mahában. His conclusion that the general rent-rate has risen from 25 to 30 per cent. during the term of the last settlement, agrees so closely with that of other Settlement Officers, that it may be safely accepted. The next piece of evidence is supplied by the patwáris' papers from the mutiny to the present time. Unfortunately, they are so falsified and inaccurate, that they are useless for inquiry as to the actual rent-rate of any given period. But Mr. Whiteway considers that they roughly indicate the *ratio* in which rents have actually risen. His analysis of these returns shows that the rise has been practically concentrated within the last ten years. This also agrees with other and independent investigations into rents made in adjoining districts in recent revisions of settlements. In Etáwah, Mr. Crosthwaite showed from the actual statistics of enhancement cases that causes were at work which tended to raise, if they had not already raised, rents by 30 or 40 per cent. within the last ten years. In Aligarh, Mr. Smith proved from the patwáris' papers a general rise of 27 per cent. in the rent-rate of the district; and allowing for unduly low rents and false returns, a real rise of 50 per cent. In the trans-Jumna parganas of Muttra, the present standard of rent is even higher, as has been shown, than in Aligarh. If the rise during the last 30 years has not been so

marked as elsewhere, the probable explanation is, that owing to heavy assessments, the standard of rent has all along been exceptionally high.

22. The work of assessment may now be considered. Mr. McConaghie assessed the whole of the district, except the Nohjhl-Mát tahsil, which Mr. Whiteway completed. As Mr. Whiteway had been Mr. McConaghie's assistant, and worked on the same lines, the settlement of the whole district may be said to have been made on the same principles; though, owing to the peculiar proprietary tenures of the cis-Jumna tract, exact uniformity of method was impossible. The assessments were everywhere based on the average rates of rent actually paid, and upon actual rentals so far as they represented fair rents. The problem was to ascertain for each description of land the rate of rent which was ordinarily held to be a fair one, and to govern the average *bona fide* transactions between landlord and tenant. To ascertain this it was necessary to exclude from the analysis of rentals all instances in which the rent was obviously too low or too high. This process of elimination is an extremely delicate one, and for the accuracy with which it is performed the assessing officer is solely responsible. The rent-rates thus obtained are, or ought to be, such as can readily be paid by the tenants of any village to which they are applied. They do not take into consideration any anticipated rise in the standard of rent during the duration of the new settlement, though they allow for probable enhancements of unduly low rents. This principle of assessment has been repeatedly approved by Government, and is the only safe basis for a settlement.

23. The point of primary importance at the outset was the accurate demarcation and classification of the several descriptions of soil. Mr. C. A. Elliott, who was the first Settlement Officer to see the full importance of this, was content in his Farukhabad settlement to roughly demarcate the soil-areas himself when inspecting a village. This plan was also adopted in Etáwah by Mr. C. H. T. Crosthwaite. But the latter officer, in his subsequent settlement of Moradabad, had the demarcation done side by side with the preparation of the khasra and by the same staff. In the Muttra settlement a still higher stage of refinement was reached, as the soils were first demarcated by a specially-trained establishment, and then carefully revised by the assessing officer himself. The main divisions of soils adopted were those ordinarily used by Settlement Officers. In every village the manured home-lands (*bára*) were first of all marked off from the outlying area (*barha*), thus constituting the two so-called "artificial circles." In the former, good cultivation, manure, and water so obliterate the natural qualities of the soil, that it need not be taken into account. In four tahsils this home-circle was divided into the *gauhán* area and the *manjha* or more distant home-lands; but in Kosi, Chhátá, and Mát the *manjha* sub-circle was not retained. Where both the *gauhán* and the *manjha* circles were used, they were each subdivided into two and sometimes three classes. Where the *gauhán* alone was used, it was broken up into five classes. If by *gauhán* and *manjha* be understood the area ordinarily receiving manure, it was immaterial whether it was divided into these two circles or not, since in any case it was further sub-divided into four or five classes. The *barha* or outlying lands were divided into numerous classes according to soil and irrigation.

*ba'ra.*  
*Gauhan.*  
*Manjha.*

Ordinarily, there were two classes of "irrigated" and two of "unirrigated *barha*," each class being sub-divided into "good," "fair," or "average," and sometimes "below average." These included along with the ordinary loams and clays the better kinds of sandy soils (*bhúr*); but the worse varieties, known as *púth*, were separately classified as "irrigated" and "dry" *púth*. The alluvial or riverain soils (*khádir*) were usually classed apart into three or four groups.

24. From 20 to 25 classes of soil, each with its separate rent-rate, were thus employed in the assessment of a tahsil. In a district where the soil is unusually uniform in character, this elaboration of rates was probably unnecessary. Aligarh presents much the same physical features, yet the Settlement Officer contented himself with about half the number of classes used in Muttra. The object of thus multiplying rates and classes is to furnish an exhaustive classification of soils, and an unerring formula for estimating the rental of any particular village. Yet in practice no Settlement Officer finds he can assess in this purely mathematical way. "A rough allowance," as Mr. Whiteway says, "for the special character of the village," has invariably to be made. "No one set of rates could, in fact, ever apply to a large tract of country, without some allowances." It is therefore probable that fewer and more general rates would have answered quite as well in Muttra as the more elaborate ones actually used. At the same time multiplicity of rates allow the assessing officer to furnish better formal proof of the accuracy of his assessment; and as long as they do not cramp his judgment and supersede discretion, they are unobjectionable. In the present instance, there is ample proof that this was not the case.

25. In the trans-Jumna parganas the mode in which standard rent-rates were deduced from the soil-areas thus demarcated and classified presents few peculiarities. The chief difficulty arose from the prevalence of lump-rents. Field-rents, that is to say, rent paid field by field, are in this district almost unknown. Where a holding comprises half a dozen soils, the proportion of the rent paid on each class of soil does not reveal itself on cursory examination. The first step taken by the Settlement Officer was to get together every holding that consisted of only one class of land. From these holdings he deduced average rates for the several classes of soil. The next thing was to test these rates over a wider field. He therefore took the entire area held by tenants in the tract under assessment, eliminated those villages or holdings the rents of which he thought were unduly low, and compared the actual rent paid on that area with the rent which his average soil-rates applied to it gave. If the two closely approximated, his rates were likely to be fair ones. As a rule, he found that the rates deduced from holdings of uniform quality had to be slightly lowered before they could be generally applied. This correction was invariably made.

26. The chief point to notice in this procedure is the extent to which low-rented lands were excluded from the test area. In Sahpau, for example, the area held by tenants is 12,265 acres, comprised in 36 villages. Of these, eleven villages, with an area of 4,282 acres, were excluded from the investigation, because the recorded rentals were false. There remained



7,983 acres; and of these 3,193 acres were similarly excluded as being either under-rented or rack-rented. The test area thus left was 4,790 acres, or 34 per cent. of the whole tenant area. Elsewhere the test area was greater : thus in Sadabad it was 44 per cent., in Mahában 55 per cent., in Mát 66, and in Nohjhl 41. The extent, however, of the test area is less important than its representative character. In each case the assessing officer was satisfied that the holdings selected "contained all descriptions of soil, and were held by all classes of tenants," and felt justified in assuming that the rent-rates thus obtained "were applicable to the remainder of the area."

27. An assessment on these principles could not fail to appear more than 50 per

	Corrected rental before enhance- ment.	Recorded rental after enhance- ment.	Corrected rental after enhance- ment.	Rental at double the revenue.
	Rs.	Rs.	Rs.	Rs.
Sahpau ...	93,866	88,216	1,02,502	1,21,800
Sadabad ...	4,37,419	3,68,956	4,73,414	5,10,232
Mahában ...	4,42,426	5,10,297	5,81,647	6,28,574
Mát ...	4,91,849	4,21,012	...	5,63,640

cent. of the re-  
corded rentals.  
The "correct-  
ed" rental in  
the annexed  
table is the ren-  
tal after a fair  
rent has been

applied to *sír* and other low-rented lands. Where so much is held as *sír*, this is a very important correction. Thus, in Sadabad 17,749 acres of *sír* are recorded as paying a gross rent of Rs. 8,143, or less than 8 annas the acre, though the average rent-rate of the pargana is Rs. 5-8-0. The "corrected rental," after enhancements effected through the settle-ment courts, was still somewhat less than twice the revenue assessed. But if allowance for concealment of assets and for manorial and other dues (*siwai*) be made, the difference is very slight. The enhancement suits, which might be but had not yet been brought, might be fairly expected to cover this. For Mát the "corrected" figures for the recorded rental of 1877-78 after enhancement are not given in column 3, as owing to the famine the rental of that year was abnormally low.

28. In Sadabad and Sahpau concealment of assets had been generally practised. According to the patwáris' returns the rental had remained almost stationary in Sahpau since the mutiny, although the majority of the zamíndárs are traders or speculators, who are keen to take advantage of the rise in prices and the land-hunger of the agricultural classes. In Sadabad a portion of the rent was frequently not recorded in the patwáris' papers, but was secured by a bond enforceable through the civil courts. Muttra is not the only district where returns of rental have to be regard-  
ed with suspicion. In Etáwah and elsewhere 7 per cent. on the recorded assets has been considered a fair allowance for concealment.

29. The assessment of the cis-Jumna tract has now to be considered. Of its three tahsils, that of Muttra presents conditions closely resem-  
bling those found on the east bank of the river. There are few *bhaiya-  
chára* communities, and comparatively little of the land is held as *sír*. The *sír* area is only 29,930 acres out of 121,790. It was therefore possible to obtain average rent-rates by the ordinary inductive process, though the inquiry was complicated by the extraordinary variety of

methods in which rent was found to be levied. "There are," says Mr. McConaghey, "all-round rates on cultivation, crop-rates, irrigated and dry rates, rough soil-rates, rates for resident and non-resident cultivators, rates for hereditary tenants and rates for tenants-at-will, rates on ploughs, rates on wells, rates varying according to the quality of the water used, rates for manured and unmanured land, lump-rates, and finally numerous modified sets of rates—based on and derived from two or more of those already specified. All these existing rates have been carefully enquired into, and a full record of them made in the village histories prepared prior to assessment." Through this labyrinth of usage had the assessing officer to grope his way in the inquiry as to what were fair commercial rents for the several qualities of land. The most important class of soil was the unirrigated light loam outside the manured home-circle, of average fertility, classed as "dry average *barha*, I." It occupied 42,228 acres, or one-third of the entire cultivated area. Only 1,625 holdings, consisting of this class of soil alone, were found; on their aggregate area of 5,207 acres, the average rent paid was Rs. 3-13-9 per acre. Taking Rs. 3-12-0 as the standard rent for this class of soil, Mr. McConaghey raised it to Rs. 4 for soils classed as "good dry *barha*, I.," and lowered it to Rs. 3-6-0 for "inferior dry *barha*, I." Standards for home-lands, irrigated and sandy soils, were similarly elaborated. The latter class, however, were leniently treated, and an ample margin left for the precarious character of their cultivation. Neglect to allow for this was the main cause of the assessments of the *bhūr* villages of pargana Azamnagar in the Etah district breaking down.

30. In this point and in the skilful adaptation of the revenue to local peculiarities lies the strength of Mr. McConaghey's work, not only in the Muttra pargana, but throughout the district. The revised revenue on a rigid application of the rent-rates fell at Rs. 2,57,940; but as allowances were made where they seemed to be required, and progressive *jamās* fixed in the case of large enhancements, the revenue actually imposed amounted to only Rs. 2,37,418, rising in the sixth year to Rs. 2,49,268. This gave an increase of 16 per cent. on the expiring demand. As cultivation had increased by 27 per cent., irrigation had more than doubled, and prices risen fully 40 per cent. since 1835, the enhancement was fully justified. It seems probable that the landholders have already recouped themselves from their tenants. Before the revision, the corrected rental was Rs. 3,41,140: after enhancements of rent by the settlement courts it stood at Rs. 4,36,026. There was thus an increase of Rs. 95,000 in the rental, against an increase of only Rs. 35,030 in the revenue.

31. In Chhāta and Kosi, the two other tahsils of the cis-Jumna tract, the task of assessment was still more arduous. A very large portion of the land does not pay rent, being cultivated by the proprietors themselves. A further portion is held by privileged tenants, paying little more than the State dues and village expenses. The proprietary bodies are numerous and for the most part poor. They rely for subsistence less on rent than on their profits as cultivators. A severe assessment would speedily ruin them. The tract also is peculiarly liable to drought

and famine. On the other hand, the late settlement was known to have been light from the first, and to have grown still lighter with the extension of cultivation and irrigation. An increase in the State demand was evidently justified, but the usual data for determining it were wanting. To base the revenue on one-half the actual rental was here impossible, for rental and revenue were as often as not synonymous. In Kosi 49,295 acres, out of the total cultivated area of 81,668, are held as *sir*, and the recorded rental after enhancement was only Rs. 2,10,495, against a revenue demand of Rs. 1,67,040. In Chhāta the *sir* cultivation was 46,842 out of 115,863 acres, and the recorded rental Rs. 3,07,419 against a revenue of Rs. 2,02,933. Still there were some holdings and some villages in which rents were found to be based on fairly commercial principles. To these the assessing officer had to confine himself in framing rent-rates. Thus, in determining the rate on ordinary unirrigated loam, he took as his starting point a large village in which 1,500 bighas of this class of soil was held by non-resident cultivators at a uniform rate of Rs. 2 a bigha. This was compared with a number of other instances, until finally the conclusion was reached that Re. 1-14-0 a bigha or Rs. 3-4-0 an acre was a fair rate. The rates for the other unirrigated soils of the outlying (*barha*) area were similarly arrived at. But of the rent paid on home-lands (*gaubān*), and irrigated lands generally, no examples could be found. Either no distinction at all was recognised by the people in the rent payable on dry and on wet land, or else it was veiled by the all-round rate of so much an acre paid on holdings composed of both wet and dry lands. The Settlement Officer had therefore to estimate rates of rent for these classes. This he did on the basis of his rates for unirrigated outlying lands. The particular rates employed will be noticed lower down. Here it need only be said that they were extremely moderate. For Chhāta the revised revenue was Rs. 2,02,933, or an increase of 14 per cent. on the old demand. For Kosi it was Rs. 1,67,040, or an increase of 10·5 per cent. In Chhāta the rent-rates rigidly applied would have given a revenue of Rs. 2,04,500, and in Kosi of Rs. 1,71,000. But allowances were made for local peculiarities. In the case of cultivating brotherhoods it was wisely thought the best policy to err on the side of leniency if there was a reasonable doubt. Mr. Whiteway's remarks on page 99, as to the burden of the settlement and the persons on whom it falls, have an important bearing on this point. In theory the land-revenue is a tax on rent; and if it is raised, the landlord is supposed to be able to recoup himself from the tenant. But in the cis-Jumna parganas the power of the landholder to do this is very circumscribed; and where he himself is a cultivator, and not a rent-receiver, the enhancement of the revenue means a sudden decrease in the cultivating profits which he has been accustomed to enjoy.

32. The rates employed in assessing the several parganas and the incidence of the revenue may now be briefly noticed. Mr Whiteway has appended to his report the pargana rent-rate reports, from which this information may be gathered, but he has not brought it together for the whole district as he should have done. The following table exhibits the principal rates and the areas to which they were applied. The *khādir* area is omitted for the sake of conciseness :—

	Sahpau.		Sadabad.		Mahdhan.		NORJHYL AND MAT.				Multra.		Chhda.		Kosi.	
	Area.	Rate.	Area.	Rate.	Area.	Rate.	Area.	Rate.	Area.	Rate.	Area.	Rate.	Area.	Rate.	Area.	Rate.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Gauhan, I.	596	12	2,074	12½	795	14	237	12	360	12	1,087	12	...	...	...	...
Ditto, II.	362	10	2,655	10½	4,004	10½	1,033	10	618	10	1,640	7	...	...	...	...
Ditto, III.	...	...	...	...	839	8	1,354	8½	2,100	8½	1,136	6½	...	...	...	...
Manjha, I.	847	9	3,511	9½	972	10	...	...	...	...	1,584	6½	...	...	...	...
Ditto, II.	1,062	7	6,540	8½	10,806	8	2,549	7½	2,681	7½	3,705	6	...	...	...	...
Ditto, III.	...	...	...	...	1,980	7	27	6	165	6	4,118	5½	...	...	...	...
Home-lying tarai	63	8	206	8½	170	8	...	...	...	...	...	...	...	...	...	...
Irrigated barha, I., good	5,563	7½	15,911	7½	9,781	7	...	...	...	...	12,290	5	...	...	...	...
Ditto ditto, fair	4,129	6½	24,114	6½	24,399	6	18,246	6½	8,947	5½	16,193	4½	...	...	...	...
Ditto ditto, II., good	2,579	5½	14,100	5½	23,581	5½	9,845	5½	10,901	5½	6,962	4½	...	...	...	...
Ditto ditto, average	1,603	5½	...	...	6,815	4½	1,700	5	1,782	4½	...	...	...	...	...	...
Irrigated barha, tarai	953	6	1,583	6½	759	6	...	...	...	...	...	...	...	...	...	...
Dry ditto, ditto	103	4½	325	4	328	4½	104	4	332	4	...	...	...	...	...	...
Dry barha, I., good	105	5	440	5½	3,612	5	6,738	4½	8,503	4½	5,945	...	...	...	...	...
Ditto, fair	43	4	958	4½	3,201	4	...	...	...	...	49,298	3½	...	...	...	...
Ditto, below average	...	...	...	...	...	...	...	...	...	...	9,645	3½	...	...	...	...
Ditto, II., good	44	3½	4,904	3½	7,813	3½	2,512	3½	4,142	3½	5,613	3	...	...	...	...
Ditto, average	179	3½	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Irrigated puth	77	3	1,807	3	648	3	308	3½	521	3½	...	...	...	...	...	...
Ditto, bad	...	...	...	...	...	...	17	3	43	3	...	...	...	...	...	...
Dry puth, fair	70	2	3,221	2	1,903	2½	1,717	2½	3,334	2½	4,688	2½	...	...	...	...
Ditto, bad	...	...	...	...	4,598	1½	853	1½	...	...	3,268	1½	...	...	...	...
Irrigated rakar	...	...	...	...	...	...	203	4½	295	4½	...	...	...	...	...	...
Dry rakar	...	...	...	...	...	...	111	3	295	3	...	...	...	...	...	...

33. In Chhátá, Kosi, and Mát no separate *manjha* sub-circle was used; but in the above table the inferior classes of *gauhán* lands are shown under the heading *manjha*. In five of the seven tahsils, the outlying (*barha*) area is divided into classes I., II., &c., without mention of soil; but in Chhátá and Kosi the natural soil divisions are mentioned. As first class *barha* practically comprises the loam soils, and second class the *bhúr*, the soil distinctions used in the Chhátá and Kosi tahsils have not been shown in the table. These minor distinctions apart, the rates are framed on singularly uniform principles. The scale of values is of course very much higher for the trans-Jumna than for the cis-Jumna tract, but the homogeneity of each tract in itself is apparent. It would not be difficult to frame for each a set of rates applicable generally to all the revenue sub-divisions they respectively include. The distinctions between the two tracts are briefly these :—

In the trans-Jumna tract the bulk of the land consists of "irrigated outlying;" the first class paying an average rate of Rs. 6 or Rs. 7 an acre, and the second class from Rs. 5 to Rs. 5½. In the cis-Jumna "unirrigated outlying" is the prevailing soil, paying from Rs. 3-4-0 an acre in Chhátá to Rs. 4 in Kosi. The rate for the same land when irrigated is Rs. 5. The superiority of the trans-Jumna parganas is also seen in the higher rates paid on home-lands. In Mahában Rs. 14 an acre is paid over a small area, and Rs. 10-6-0 is the prevailing *gauhán* rate. In Sadabad, the high rent of Rs. 12-8-0 is paid over half the *gauhán* area. But in the cis-Jumna parganas of Kosi and Chhata the rates employed for *gauhán* land were Rs. 5¼, Rs. 6, and Rs. 7 an acre. Even these were rates of rent *assumed* by the assessing officer, rather than actually paid; for the distinction between home and outlying lands "had never before," it is admitted, "influenced the determination of rents" (page 216).

34. With such differences in irrigation and cultivation, a marked difference in the incidence of the revenue assessed on the two tracts is to be expected. In the trans-Jumna parganas it is Rs. 2-12-8 the cultivated acre: in the cis-Jumna it is Re. 1-14-8. The incidence is heaviest in Sahpau and Sadabad, where it falls at Rs. 3-5-0 and Rs. 3-1-11, respectively. Of these rates it is sufficient to say that they are probably the highest paid in any pargana in the province. The revenue-rate for the rich pargana of Háthras is only Rs. 2-13-8 the cultivated acre. The highest rate for any pargana in Cawnpore is Rs. 2-15-4. In Meerut the rate for pargana Chaprauli is Rs. 3-1-7, but this tract is of unsurpassed fertility. In Etáwah the highest rate is Rs. 2-13-5 in pargana Bidhúna, a highly cultivated tract, with a rich loam soil and abundant irrigation. These instances show the high incidence of the revenue of Sahpau and Sadabad. If the assessments were made on hypothetical premises, they might be suspected to be unduly severe. But as they are based on rents actually paid, the only possible conclusion is that the standard of rent in these parganas is abnormally high. That this is so, and that the causes may be traced in the early fiscal history of the tract, has been already shown. It is also to be noted that

in these two parganas of Sahpau and Sadabad, the revision of settlement has resulted in the smallest increase.

35. The cis-Jumna parganas, on the other hand, compared with other districts, have been leniently assessed. The incidence of the revenue is in the Muttra tahsíl Rs. 2-0-5, in Chhátá Re. 1-11-10, in Kosi Rs. 2-0-2. These parganas are certainly not inferior to the *ghar* tract of the Etá-wah district, between the Sengar and the Jumna, where the soil is light, the spring-level low, and irrigation very limited. Yet the revenue-rate of pargana Auraiya is Rs. 2-2-9, and of Bharthna Rs. 2-4-0. Notice has been taken above of the extreme caution with which Mr. McConaghey framed his rent-rates, and the tenderness with which he treated the numerous coparcenary brotherhoods. At the same time so light had the revenue of the expiring settlement become, that his revision gave increases of 10, 14, and 16 per cent. in Kosi, Chhátá, and Muttra, respectively.

36. Two matters in regard to these parganas require brief notice—their liability to drought on the one hand, and the extension of canal-irrigation on the other. The terrible effect of the famine of 1837-38 on the Kosi and Chhátá tahsíls is well described in the extract from the narrative of an eye-witness (page 76), which the Board have quoted in their review. In 1860 and again in 1868 the same tract was again severely tried, though the suffering was much less intense. The comparative ease with which these two calamities were borne, is ascribed by Mr. Whiteway to the lightness of the revenue and the general improvement in the material condition of the cultivating classes (page 49 and page 79). In 1877 the cis-Jumna parganas of Muttra suffered heavily from the drought. Thousands of cattle died, and fodder was so scarce that the trees were utterly stripped of their leaves. The condition of the country at the close of 1878 was thus described :—“ The crops now on the ground, in the tracts of the Muttra district lying to the west of the Jumna, are miserably bad, and bad as they are, they do not cover more than two-thirds of the ordinarily sown area.” Rs. 1,25,000 was spent by Government in wages on relief works, Rs. 45,300 on charitable relief : and a large portion of the revenue was temporarily suspended. Thus aided the district tided over the season of distress, and the arrears of revenue have been realised without much difficulty. In 1879-80 the revenue was realised without recourse to any of the severer coercive processes. In nine cases only was moveable property distrained ; and in the tahsíls of Chhátá, Kosi, and Mát not even a single writ of demand was issued. If the cis-Jumna parganas are peculiarly liable to drought, they also show a remarkable power of recovering from its effects. A lenient assessment, along with liberal suspensions of revenue in a bad year, is no doubt the secret of this prosperity.

37. The extension of irrigation from the Agra Canal is less rapid than might be expected. In 1877-78, the year of drought, the area thus irrigated was 17,314 acres in the *kharíf* and 34,543 in the *rabi*. This sank in 1879-80 to 8,774 and 13,283 acres, respectively. The explanation given is that the cis-Jumna cultivator has not yet realised the value of the certainty of a good crop, and only resorts to irrigation on failure of

the rains. The higher water-rates charged on the canal, compared with those on the Ganges, also account for this slow progress. But the introduction of sugarcane and indigo are significant signs of a coming change in the agriculture of this tract, the ultimate result of which it is impossible to predict. The indirect revenue which the State should reap from the substitution of wet for dry cultivation is secured in this district by the owners' rate, as the Settlement Officer took no notice when assessing the land-revenue of canal-irrigation. "The inspection," says Mr. Whiteway, "took place in a year when the marks of the original well-irrigation were still clearly recognisable, and the wet areas were taken on the state of irrigation before the introduction of the canal. Owners' rate is therefore payable on all fields recorded by us as dry, which have since been irrigated from the canal." The owners' rate, therefore, which is one-third of the tenants' water-rate, is designed to give the State its legitimate share of the enhanced rents which canal-irrigation enables the landholder to obtain. Theoretically, the arrangement seems a good one; but in practice the rate is found difficult to assess; and the problem how best to do so cannot yet be considered as finally solved.

38. The leading features of the settlement have now been sufficiently indicated. In the trans-Jumna tract the assessment secures the State its full share of the rental: in the cis-Jumna tract a somewhat higher increase of revenue might have been defended; but in view of the backward condition of the country, the peculiar tenures on which the land is held, and the precarious character of the cultivation, the Lieutenant-Governor has no hesitation in saying that leniency was the wisest policy. He would therefore recommend that the settlement of the whole district be confirmed for the full period of 30 years from the dates on which the assessments of the several tahsils respectively took effect.

39. The cordial thanks of Government are due to Mr. McConaghey and to Mr. Whiteway. The work done by them as assessing officers has been chiefly dwelt on in these remarks; but the care which they spent on preparing a correct and complete record-of-rights, will have no small effect on the well-being of the people. It was of the greatest importance that the intricate and singular tenures and agricultural customs, which Mr. Whiteway has so well described, should be patiently investigated and placed on record. In this respect everything that could be wished has been done. Mr. Whiteway's chapter on "Records" shows the care bestowed on this subject; and the instructions drawn out by the late Mr. Reade, the Assistant Settlement Officer, for the preparation of the rough records, and more especially the *wajib-ul-arz*, are a model of clearness and exact knowledge. By the untimely death of this young officer the State lost a very promising public servant.

C. ROBERTSON,

*Secretary to Government,*

*N.-W. Provinces and Oudh.*

**ORDER.**—Ordered that a copy of this Resolution be forwarded to the Secretary to the Board of Revenue, North-Western Provinces, for the information of the Senior Member, with reference to his letter No.  $\frac{160}{I-152}$ , dated the 1st September, 1880.

---

Ordered also that a copy of this Resolution and of the Settlement Report be forwarded to the Secretary to the Government of India, Revenue and Agricultural Department, with the recommendation that the settlement be confirmed as proposed.

By order, &c.,

C. ROBERTSON,

*Secy. to Govt., N.-W. Provinces and Oudh.*



*Extract from a letter from Offg. Secy. to the Govt. of India, Rev. and Agri. Dept., to Secretary to Government, North-Western Provinces and Oudh, No. 277 R., dated the 10th December, 1881.*

I AM directed to acknowledge the receipt of Mr. Whiteway's Final Settlement Report of the Muttra district, and the resolution of the Lieutenant-Governor thereon, No. 1198, dated the 1st August, 1881.

The Government of India accepts the conclusions of the Local Government that the settlement has been made on fair and lenient principles, and that the enhancement of revenue obtained by it will not press with undue severity on the agricultural community.

\* \* \* \* \*

The Governor-General in Council joins the Lieutenant-Governor in his commendation of Mr. Whiteway's able and careful report, and confirms the settlement of the whole district for the full period of thirty years from the dates on which the assessments of the several tahsils respectively took effect.

---

No. 2094.

*Dated 26th December, 1881.*

Copy forwarded to the Secretary to the Board of Revenue, North-Western Provinces, in continuation of Resolution No. 1198, dated the 1st August, 1881, for the information of the Board and communication to Mr. Whiteway.

By order, &c.,

C. ROBERTSON,

*Secy. to Govt., N.-W. P. and Oudh.*









